

# Curriculum Vitae

Full Name: **Dung Duc Tran, BE, MSc, PhD**

Nationality: Vietnam

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



E-mail: dungtranducvn@gmail.com

## QUALIFICATIONS

- 2014-2018** Ph.D. of Hydrology and Water Resources Management, Wageningen University in the Netherlands supervised by Prof. Dr. Petra Hellegers, Prof. Dr. Gerardo van Halsema, and Prof. Dr. Fulco Ludwig.
- 2009-2011** M.Sc. of Hydrology and Water Resources specialization (Top 3), UNESCO-IHE Institute for Water Education in the Netherlands supervised by Professor. Stefan Uhlenbrook and Dr. Jochen Wenninger.
- 2000-2005** Bachelor of Civil Engineering (Top 5 students), Water Resources University in Ho Chi Minh City.

## PRIZES, AWARDS, SCHOLARSHIPS AND OTHER DISTINCTIONS

- 2019** Award for Excellent Scientists in Publishing Peer-reviewed ISI Papers, Vietnam National University in Ho Chi Minh.
- 2018** Award for Excellent Scientists in Publishing Peer-reviewed ISI Papers, Vietnam National University in Ho Chi Minh.
- 2018** One of 17 talent scientists achieving the fellowship sponsored by the US-ASEAN Foundation.
- 2014** Scholarship of NICHE project for the sandwich PhD program in Wageningen University, the Netherlands and Vietnam National University in Ho Chi Minh.
- 2011** One of three top students of Hydrology and Water Resources specialization in UNESCO-IHE, Delft, the Netherlands.
- 2009** Government Scholarship for Master Degree at UNESCO-IHE, the Netherlands with topic: "Assessment of Water Resources and Balance Calculation of the Bléone river basin, France" in 2011 supervised by Professor. Stefan Uhlenbrook and Dr. Jochen Wenninger.
- 2008** Obtained a government scholarship from the Ministry of Agriculture and Rural Development (MARD).
- 2005** Leader of a group of three students awarded the Certificate of Merit for National Students of Scientific Research organized by Forestry and Agriculture University (HCMC), second rank, namely "Using HEC-HMS modelling to calculate flow for Dau Tieng reservoir, Tay Ninh province, Viet Nam".
- 2003** Awarded by Water Resources University for Student Scholarship over 2 years (2004-2005).
- 2001** Certificate of merit in promoting the movement Youth Union at Water Resources University, HCM City, Vietnam.

## EMPLOYMENT HISTORY

- 2014-2019** Deputy Head of Research Division of Centre of Water Resources Management and Climate Change, Vietnam National University in Ho Chi Minh.
- 2013-2014** Deputy Head of Division of WRP for Southeast Area and Its Adjacent Areas - Southern Institute for Water Resources Planning in Ho Chi Minh City.
- 2005-2013** Researcher of Division of WRP for Southeast Area and Its Adjacent Areas - Southern Institute for Water Resources Planning in Ho Chi Minh City.

## MEMBERSHIP OF/AND INVOLVEMENT WITH PROFESSIONAL ORGANISATIONS

- 2013** Project leader coordinated in Vietnam, IFPRI Organization (International Food Policy Research Institute), United-States.
- 2013** Project leader coordinated in Vietnam, ATB Project of Germany.
- 2008** Participant, Integrated Water Resources Management, Malang, Java Tirta I, Indonesia.

## RESEARCH INTERESTS / EXPERTISE

1. GIS and Remote Sensing and its application in Water Science:
  - GIS and Remote Sensing in Hydrology:
    - Flood-risks forecasting downstream from soil moisture content upstream,
    - Multi-objective Reservoir and application of GIS and Remote Sensing in hydrological models.

# Curriculum Vitae

## 2. Engineering education:

- Irrigation
- Hydrological and Hydraulic Modelling (Flood and Tide Impact) with MIKE Software, HEC-HMS, HEC-RAS, NAM, MITSIM.

## TRAINING COURSES AND CONFERENCES

2020	International Workshop on Mathematical Biology held on 6-8 <sup>th</sup> January 2020 at the University of the Philippines Los Baños, the Philippines.
2019	Conference on “Science, Technology, and Innovation” organized by the US- ASEAN Foundation and AUSAID, June 2019 in Bali, Indonesia.
2019	Training Course of Improving Scientist Skill by British Council and MOST Vietnam, May 2019 in Ho Chi Minh City.
2018	Workshops of “Award for ASEAN Science and Technology Fellowship” in Jakarta, Indonesia from 25-30 June 2018, and the one in Philippines about “Advanced Capacity Building Workshop ASEAN Science and Technology Fellowship 2018/2019” organized in Cebu city from 14-18 October 2018.
2017	Workshop on the visiting of Vietnamese Prime Minister, Nguyen Xuan Phuc to Wageningen University, the Netherlands. An Oral Pitch Presentation was made in Wageningen.
2017	International workshop on solutions on flood retention capacity for the Mekong Delta, Can Tho Province, Vietnam. An oral presentation was taken.
2016	Training course of Resilience and Adaptation Resilience and Adaptations to Climate Change for Sustainable Management of Tidal Areas at Cheng Kung University, Tainan, Taiwan.
2016	International Workshop, “Appropriate Technology Solutions for Water, Energy and Land Management in the Mekong Delta”, in Can Tho Province, Vietnam, as a Participant.
2016	Oral presentation at seminar Workshop in Centre of Water Resources and Climate Change (WACC), in Ho Chi Minh City, Vietnam.
2016	International Conference on Water Resource and Environment, in Shanghai, China. An oral presentation was made.
2014	Conference on “DELTAS IN TIMES OF CLIMATE CHANGE II” organized in Rotterdam, the Netherlands.
2013	Training course of Remote Sensing at National University, Taipei, Taiwan.
2008	Training course of Integrated Water Resources Management in Java Tirta I Corporation in Malang, Indonesia.
2006	Mike Flood model (the flood forecast model) in DANIDA project.
2006	Mike 11 model (dynamic modelling of rivers) in DANIDA project.
2005	Construction management in Water Resources University (WRU).

## RESEARCH GRANTS

2005	Awarded the Certificate of Merit for National Students of Scientific Research organized by Forestry and Agriculture University (HCMC), second rank, namely “Using HEC-HMS modeling to calculate flow for Dau Tieng reservoir, Tay Ninh province, Viet Nam”. Research Grant.
------	---

## MAJOR RESEARCH PROJECTS

2014-2018	PhD candidate of Hydrology and Water Resources Management Group, Wageningen University in the Netherlands with title “Implications of land use dynamics on floodplains under climate change impacts in the Vietnamese Mekong Delta”.
2013-2014	Project secretary of the Agency French Development (AFD) project about Flood Prevention in the lowland areas of the Sai Gon river basin.
2012	Project coordinator of the BMZ Small Grants project ‘Linking increases in water use efficiency for food production at the farm scale with global projections’ in cooperation with ATB, Potsdam and IFPRI, Washington; since March 2012.
2011	Head of the project of Innovative water-saving irrigation and investment priorities and Food and water sustainability in Vietnam applied for Nha Trinh-Lam Cam irrigation system, Ninh Thuan province, 2011; (SIWRP and IFPRI Cooperation Program).
2011	Head of the project of Hydraulic calculation for the Ben Luc-Long Thanh expressway in Long An and Dong Nai provinces under climate change and sea level rise.
2011	Member of the project of Overall Water Resources Planning for Southeast Area and Its Adjacent Areas in context of climate change and sea level rise, 9 provinces.
2008	Member of the demarcation and boundary landmark project between Viet Nam and Cambodia, collecting and analyzing data, drafting irrigation reports, and making GIS map (using ArcView 3.2 GIS program).
2007	Staff member of the Water Resources Planning Project for Dong Nai river basin, water balance calculation by MITSIM model, collecting and analyzing data; making GIS map (using ArcView GIS 3.2 and MapInfo 7.1 programs).

# Curriculum Vitae

- 2006 Key member in the Study for the Water Resources Planning Project for centralized economy zone of the southern of Viet Nam, preparing data to run HEC-HMS, RRMOD model; making GIS map (using ArcView 3.2 and MapInfo 8.0 programs).
- 2005 Member of the performance testing study: Assessment of water resources availability in La Buong river basin, sponsored by DANIDA-Denmark.
- 2005 Member of project: Improvement of the existing GIS Database System, consolidation of the water balance model, and development of hydraulic model for integrated water resources development & management in the Dong Nai river basin and its surrounding basins, sponsored by DANIDA-Denmark.

## PUBLICATIONS (published or in press)

### Book Chapters:

- [1] Dung T.D., Dung V.V., Cuong P.H., (2005). Using HEC-HMS modelling based on rainfall data, to simulate discharges for Dau Tieng reservoir, Tay Ninh province, Viet Nam. In Forestry University.

### Journal Papers:

- [2] S.J. Sutanto, J. Zafra, F. Anvarifar, T.D. Dung. Hydrological, Geological, Chemical Assessment of Bouinenc Catchment, South of France. *Artikel Jurnal SDA VOL. 6 No.2 November 2010* (in press).
- [3] Wesselink A, Warner J, Abu Syed S, Chan F, Duc Tran D, Haq H, Huthoff F, Le Thuy N, Pinter N, Van Staveren M, Wester P, Zegwaard A (2015) Trends in flood risk management in deltas around the world: are we going 'soft'? *International Journal of Water Governance* 4(3). <http://www.internationalwatergovernance.com/ijwg-04-2015/215-doi-10756415-ijwg90.html>
- [4] D.D. Tran and J. Weger (2017). Barriers to implement irrigation and drainage policies in An Giang Province, Mekong Delta, Vietnam. *Irrigation and Drainage Journal*, DOI:10.1002/ird.2172.
- [5] Dung, D. T., van Halsema, G., Hellegers, P. J. G. J., Phi Hoang, L., Quang Tran, T., Kumm, M., & Ludwig, F. (2018). Assessing impacts of dike construction on the flood dynamics in the Mekong Delta. *Hydrology and Earth System Sciences*, 22(2), 1875–1896. <https://doi.org/10.5194/hess-22-1875-2018>
- [6] Dung, D. T., Gerardo, V. H., Petra, J. G. J. H., Fulco, L., & Wyatt, A. (2018). Questioning triple rice intensification on the Vietnamese Mekong Delta floodplains: An environmental and economic analysis of current land-use trends and alternatives. *Journal of Environmental Management*. Volume 217, 1 July 2018, Pages 429-441.
- [7] Dung, D. T., Gerardo, V. H., Petra, J. G. J. H., Fulco, L., & Chris, S. (2018). Stakeholders' assessment of dike-protected and flood-based alternatives from a sustainable livelihood perspective in An Giang Province, Mekong Delta, Vietnam. *Agricultural Water Management*. Volume 206, 30 July 2018, Pages 187-199.
- [8] Nguyen, H.Q., Radhakrishnan, M., Bui, T.K.N., Tran, D.D., Ho, L.P., Tong, V.T., Huynh, L.T.P., Chau, N.X.Q., Ngo, T.T.T., Pathirana, A., Ho, H.L., 2019. Evaluation of retrofitting responses to urban flood risk in Ho Chi Minh City using the Motivation and Ability (MOTA) framework. *Sustain. Cities Soc.* 47, 101465. <https://doi.org/https://doi.org/10.1016/j.scs.2019.101465>.
- [9] Dang, V.H.; Tran, D.D.; Pham, T.B.T.; Khoi, D.N.; Tran, P.H.; Nguyen, N.T. Exploring Freshwater Regimes and Impact Factors in the Coastal Estuaries of the Vietnamese Mekong Delta. *Water* 2019, 11, 782.
- [10] Le, V.T.; Quan, N.H.; Loc, H.H.; Thanh Duyen, N.T.; Dung, T.D.; Nguyen, H.D.; Do, Q.H. A Multidisciplinary Approach for Evaluating Spatial and Temporal Variations in Water Quality. *Water* 2019, 11, 853.
- [11] Dung Duc Tran, Gerardo van Halsema, Petra J. G. J. Hellegers, Long Phi Hoang, and Fulco Ludwig. Long-term sustainability of the Vietnamese Mekong Delta in question: An economic assessment of water management alternatives', *Agricultural Water Management*, 223, p. 105703. doi: <https://doi.org/10.1016/j.agwat.2019.105703>.
- [12] Chetan Sharma, Chandra Shekhar Prasad Ojha, Anoop Kumar Shukla, Quoc Bao Pham, Nguyen Thi Thuy Linh, Chow Ming Fai, Ho Huu Loc, Tran Duc Dung. Modified approach to reduce GCM bias in downscaled precipitation: A study in Ganga river basin. *Water*, 2019.
- [13] Quang Huu Le, Dung Duc Tran, Yi-Ching Chen and Huong Lan Nguyen. Risk of Lead Exposure from Transport Stations to Human Health: A Case Study in the Highland Province of Vietnam, *Toxics*, 2019.
- [14] Nguyen Hong Quan, Tran Duc Dung, Dang Kim Khoi, Dorien Korbee, Pham Dang Manh Hong Luan, Ho Huu Loc, Vu Thi Lan, Luu Thi Tang, Nguyen Tan Phat, Ngo Thi Thu Trang, Nguyen Thi Kim Dung, Andrew Wyatt, Maaik van Aalst, Tran Anh Thong, William Sea. Land use dynamics in the Mekong delta: from national policy to livelihood sustainability. *Sustainable Development*, 2019.
- [15] Attar, F. N., Pham, B. Q., Nowbandegani, F. S., Rezaie-Balf, M., Fai, M. C., Ahmed, N. A., D.D. Tran, El-Shafie, A. (2020). Enhancing the Prediction Accuracy of Data-Driven Models for Monthly Streamflow in Urmia Lake Basin Based upon the Autoregressive Conditionally Heteroskedastic Time-Series Model. *Applied Sciences*, Vol. 10. <https://doi.org/10.3390/app10020571>

# Curriculum Vitae

## SKILLS

### Teaching skill

- Lecturer of the Bachelor Program for the U.S students, Loyola University Chicago, in two lectures of Atmospheric Circulation and Moisture Cloud Precipitation;
- Supervisor of National and International Students in Bachelor and M.Sc. programs;
- English teacher with TESOL Certification.

### Computing skill

- Experience in preparation of hydrologic data for water resources projects; water resources planning projects, and modelling of water resources in a river basin context;
- Spreadsheet packages: Microsoft Office; SPSS.
- Programming languages: Avenue in ArcView, Visual Basic; VBA for Excel, and R.
- Software ARCVIEW 3.2 GIS, MAPINFO 10.0, ArcGIS 10.0, Auto CAD, Application of GIS and Remote Sensing in Hydrology;
- Modelling: RRMOD, NAM, HEC-HMS, MITSIM, WEAP, Mike Basin, Mike 11, Mike 21, Mike Flood, and Mike SHE;
- Languages: Vietnamese – mother-tongue, English – high level.

### Leader skill

- I was a deputy head of Youth Union in Water Resources University.
- I was deputy head of Division of WRP for Southeast Area and Its Adjacent Areas - Southern Institute for Water Resources Planning in Ho Chi Minh City.
- I leded successfully a pitch presentation to Vietnamese Prime Minister during his visiting to Wageningen University in 2017.
- I am now deputy head of Centre of Water Management and Climate Change, Vietnam National University Ho Chi Minh and has been assigned to become one of the division head of research centre.

### Time Management

- I am a responsible person, both in work and social activities.
- In 2011, I successfully completed the M.Sc. degree in the UNESCO-IHE, the Netherlands within 18 months. In addition, I started in 2014 and successfully defended the PhD thesis in November 2018, which was on time completed (4 years).
- I always conduct projects' assignments on time with high-quality results. When I meet difficulties, I never give up and always try to find solutions both in individual manner as well as teamwork discussion. I also met without failure at many deadline duties during my career. I have extensive experience of juggling different tasks and concluding.

### Other skills

- Writing reports and articles.
- Presentation.
- Research methodologies.
- Social field survey and data collection.
- GIS application and statistical software or theory.

## INTERESTS

- I enjoy playing football, and I was a main member of Water Resources University Team in Ho Chi Minh city, Vietnam. I was also a key player in UNESCO-IHE football team over the years of 2009-2011 and helped the team gain the second position. I also like playing ping-pong, swimming and dancing.
- I can play guitar and sing well.
- I enjoy reading, travelling as well as charity activities.
- I usually help friends and colleagues as a responsible person in various activities.

I confirm that the information given in this Curriculum Vita is true, complete and accurate.

Sincerely,



Dung, Duc Tran