

CAN TRONG NGUYEN

The Joint Graduate School of Energy and
Environment
King Mongkut's University of Technology
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RESEARCH INTERESTS

Environmental Geography, Urban Environmental Management & Planning, RS and GIS-related Applications, Ecosystem Services, Coastal farming and Coastal ecosystems.

EDUCATION

- Ph.D.** King Mongkut's University of Technology Thonburi, Thailand 08/2019 – 08/2022
Environmental Technology
Dissertation: *"Assessment of Climate Change and Urbanization Impacts on Urban Surface Temperature and Ecosystem Services of Urban Green Spaces"*
Committee: A/Prof. Dr. Amnat Chidthaisong (*advisor*); Dr. Pariwate Varnakovid; Dr. Chaiwat Ekkawatpanit; Dr. Atsamon Limsakul; Prof. Dr. Qi Jiaguo.
- M.S.** Can Tho University, Vietnam 08/2016 – 12/2018
Land Management (3.71/4.00)
Thesis: *"Analysis of Urban Heat Island and Energy Consumption in Bangkok Metropolitan Area using Remote sensing"*
Advisor: A/Prof. Dr. Nguyen Thi Hong Diep
- B.Eng.** Can Tho University, Vietnam 08/2012 – 02/2016
Land Management (3.53/4.00)
Thesis: *"Studying and Evaluating Ecosystem Service of Rice-Shrimp Farming in An Minh district, Kien Giang province"*.
Advisor: Dr. Nguyen Thi Hong Diep

RESEARCH EXPERIENCE

- JGSEE, KMUTT, Thailand 08/2019 – 08/2022
Research Assistant (RA) and Freelance Researcher (FR)
 - Processing Earth observation & Geospatial data, and Data Analysis
- Can Tho University, Vietnam 03/2016 – 07/2019
Research Assistant (RA), College of Environment and Natural Resources
 - Project implementation, Field data collection, and Research proposal development.
- King Mongkut's University of Technology Thonburi, Thailand 12/2017 – 05/2018
Visiting Researcher, KMUTT Geospatial Engineering and Innovation Center

- *Processing Remotely sensed data & Geospatial data Analysis.*

TEACHING ASSISTANCE EXPERIENCE

Can Tho University, Vietnam

03/2016 – 07/2019

Teaching Assistant (TA), College of Environment and Natural Resources

- **Courses:** *Applied Remote Sensing, Geographic Information System (GIS), Geostatistics.*
- Thesis mentoring for Undergraduates and Master students of Land Management.
- Trainer for specialized workshops: *Applications of GIS and Remote sensing in Monitoring growth, pests, and disease on Rice, Forest, and Land use, land cover changes.*

HONORS AND AWARDS

Petchra Pra Jom Klao Ph.D. Research Scholarship, KMUTT

2019–2022 (~25,750\$)

It provides research funds and living expenses for excellent candidates to conduct research and gain experience under highly experienced research groups and advisor.

Ph.D. Research Fund, JGSEE

(2019–2022: ~8,500\$)

JGSEE provides thesis expense, which aims to produce high-quality research work.

Research fellowship

Dec 2017 – May 2018 (~1,800\$)

It provides research funds and living expenses for 6 months at KGEO, KMUTT, Thailand

University's incentive fellowship

2014, 2015

It is awarded to the Top 5% of excellent students annually.

PUBLICATIONS

Author's name: Can Trong Nguyen or Nguyen Trong Can; * indicates Correspondence author

2022

Nguyen, C. T.*, Chidthaisong, A., Limsakul, A., Varnakovid, P., Ekkawatpanit, C., Diem, P. K., & Diep, N. T. H., 2022. How do disparate urbanization and climate change imprint on urban thermal variations? A comparison between two dynamic cities in Southeast Asia. *Sustainable Cities and Society*, 103882. <https://doi.org/10.1016/j.scs.2022.103882>

Diep, N.T.H., **Can, N.T.***, Diem, P.K., Hoang, N.X., Kafy, A.A., 2022. Assessment on controlling factors of urbanization possibility in a newly developing city of the Vietnamese Mekong delta using logistic regression analysis. *Physics and Chemistry of the Earth, Parts A/B/C*. 103065. <https://doi.org/10.1016/j.pce.2021.103065>

Diem, P. K., Diem, N. K., **Can, N. T.**, Minh, V. Q., Huong, H. T. T., Diep, N. T. H., & Tao, P. C., 2022. Assessing the applicability of Fusion Landsat-MODIS data for mapping agricultural land use - A case study in An Giang Province. *IOP Conference Series: Earth and Environmental Science*, 964(1), 012005. <https://doi.org/10.1088/1755-1315/964/1/012005>

2021

Yaung, K. La, Chidthaisong, A., Limsakul, A., Varnakovid, P., **Can, N.T.**, 2021. Land Use Land Cover Changes and Their Effects on Surface Air Temperature in Myanmar and Thailand. *Sustainability* 13, 1–21. <https://doi.org/10.3390/su131910942>

Can, N.T., Chidthaisong, A., Diem, P.K., Huo, L., 2021. A Modified Bare Soil Index to Identify Bare Land Features during Agricultural Fallow-Period in Southeast Asia Using Landsat 8. Land 10, 1–17. <https://doi.org/10.3390/land10030231>

Can, N.T.*, Diep, N.T.H., Iabchoon, S., 2021. Direction of urban expansion in the Bangkok Metropolitan Area, Thailand under the impacts of a national strategy. Vietnam Journal of Earth Sciences. 43. <https://doi.org/10.15625/2615-9783/16313>

Loc, H.H., Park, E., Thu, T.N., Diep, N.T.H., **Can, N.T.**, 2021. An enhanced analytical framework of participatory GIS for ecosystem services assessment applied to a Ramsar wetland site in the Vietnam Mekong Delta. Ecosystem Services. 48, 101245. <https://doi.org/10.1016/j.ecoser.2021.101245>

2020

Can, N.T.*, Diep, N.T.H., Diem, P.K., 2020. Factors Affecting Urban Electricity Consumption: a case study in the Bangkok Metropolitan Area using an Integrated approach of Earth Observation data and Data analysis. Environ. Environmental Science and Pollution Research. 28, 12056–12066. <https://doi.org/10.1007/s11356-020-09157-6>

Nguyen, T. H. D., **Can, N.T.**, Nguyen, T. N. T., & Doan, T. N. (2020). Flood inundation mapping using Sentinel-1A in An Giang province in 2019. Vietnam Journal of Science, Technology and Engineering, 62(4), 36–42. [https://doi.org/10.31276/vjste.62\(4\).36-42](https://doi.org/10.31276/vjste.62(4).36-42)

2019

Can, N.T.*, Diep, N.T.H., Iabchoon, S., Varnakovida, P., Minh, V.Q., 2019. Analysis of Factors Affecting Urban Heat Island Phenomenon in Bangkok Metropolitan Area, Thailand. VNU Journal of Science: Earth and Environmental Sciences. 35, 53–62. <https://doi.org/10.25073/2588-1094/vnuces.4355>

Diep, N. T. H., Korsem, T., **Can, N. T.**, Phonphan, W., & Vo Quang Minh., 2019. Determination of aquaculture distribution by using remote sensing technology in Thanh Phu district, Ben Tre province, Vietnam. Vietnam Journal of Science, Technology and Engineering, 61(2), 35–41. [https://doi.org/10.31276/VJSTE.61\(2\).35-41](https://doi.org/10.31276/VJSTE.61(2).35-41)

2018

Diep, N.T.H., Loi, N.T., **Can, N.T.**, 2018. Monitoring erosion and accretion situation in the coastal zone at Kien Giang province, in: The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, GeoInformation for Disaster Management (Gi4DM). Istanbul, Turkey, pp. 197–203. (Conference).

2017

Loc, H.H., Diep, N.T.H., **Can, N.T.**, Irvine, K.N., Shimizu, Y., 2017. Integrated evaluation of Ecosystem Services in Prawn-Rice rotational crops, Vietnam. Ecosystem Services. 26, 377–387. <https://doi.org/10.1016/j.ecoser.2016.04.007>

PRESENTATIONS AND INVITED LECTURES

Paper Presentation, “Urbanization and Climate change impacts on Urban Heat Island in Bangkok and Ho Chi Minh city” at the 2nd International Ph.D. Students Conference on Environment. Mahidol University, Thailand (05/08/2021).

Seminar, “InVEST – Urban Cooling Model and Applications” at KMUTT Steering Committee for Carbon Neutrality by 2040. KMUTT, Thailand (23/06/2021).

Training, “Mapping Cultural Ecosystem Services using Public Participatory Mapping” at training on Approaches to Evaluating Ecosystem Services. Can Tho University, Vietnam (18/06/2021).

PROFESSIONAL TRAINING

Dec 2019: “*Remote Sensing Land use/cover Change and Climate Impacts in Coastal Zone*”. South/Southeast Asia Research Initiative (SARI), Land cover/land use Change Program, NASA and Prince of Songkla University (Phuket, Thailand).

Dec 2018: “*R-Statistics*”. Nagasaki University and Can Tho University (Can Tho, Vietnam).

Oct 2018: “*Google Earth Engine Training*”. HCMC Institute of Resources Geography and SERVIR-Mekong (HCMC, Vietnam).

July 2018: “*Water and Its many issues: Methods and Cross-cutting analysis*”. Asian water platform 2018 - WANASEA (Can Tho, Vietnam).

Mar 2018: “*GeoServices-4-Sustainability*” - Smart City and GIS for Health modules. University of Salzburg and Nanjing Normal University (Nanjing, China).

Dec 2016: “*Methods and Practices for Analyzing Local Ecological Knowledge*”, Social Science Summer School (SSSS) of SEDES IJL and HCM University of Science (HCMC, Vietnam).

Nov 2016: “*Stable Isotope Analysis for the Study of Coastal Food Webs: Theory and Practice*”, SEDES IJL (HCMC, Vietnam).

Nov 2016: “*Ecosystem-based Adaptation Approach for Sustainable Management and Governance of Coastal Ecosystems (ENGAGE)*”. AITVN (Can Tho, Vietnam).

PROJECTS

“So COOL KMUTT Plan” (2021). Funded by KMUTT under KMUTT Steering Committee for Carbon Neutrality by 2040. Duties: Leader (01 subproject) & Member (01 subproject).

“Land resource Assessment for Sustainable Development of Agriculture - Forestry - Fisheries and Socio-economic development in An Bien District, Kien Giang Province” (2020). Duty: Remote sensing Technical Assistance.

Can Tho University Improvement Project (2017-2021). Co-funded by JICA and Japanese ODA loan. Duties: Proposal Development (03 branch topics) & Implementation (subproject ODA-E8).

“Monitoring the Development and Seasonal calendar of Rice for Forecasting Rice pests”. Funded by Department of Cultivation and Plant Protection in Vinh Long province (2017). Duty: Remote sensing Technical Assistance.

“Solution for Cloud removal on MODIS time to Assess Variations of Rice crop Structures in the Mekong Delta region, Vietnam”. Funded by Can Tho University (2017-2018). Duty: Member.

“Impact Assessment of Climate Change on Aquaculture/Fisheries Household Livelihood in the Lower Mekong Delta, Vietnam”. Funded by SEARCA Seed Fund for Strategic Research and Training (SFRT) Program (2015-2016). Duty: Remote sensing Technical Assistance.

PROFESSIONAL SERVICE

Peer-Reviewed Articles for:

- International Journal of Digital Earth, Taylor and Francis
- Sustainable Cities and Society, Elsevier
- Environmental Challenges, Elsevier
- Heliyon, Elsevier
- Journal of Applied Earth Observation and Geoinformation, Elsevier
- Geo-spatial Information Science, Taylor and Francis
- Environmental Research Letters, IOP
- Environmental Research Communications, IOP
- TEMA Journal of Land Use, Mobility and Environment
- The 42nd Asian Conference on Remote Sensing, AARS

COMPUTER SKILLS

Remote sensing: ENVI, Ecognition, SNAP, Google Earth Engine.

GIS: AcrGIS, Quantum GIS, Mapinfo, Global Mapper.

Programming and Statistics: R, GEE, SPSS, Python.

REFERENCES

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