#### CURRICULUM VITAE

#### Edward Park Assistant Professor Earth Observatory of Singapore (EOS), National Institute of Education (NIE) & Asian School of the Environment (ASE) Nanyang Technological University (NTU)

#### **Academic Qualifications**

- 2017 PhD in Geography, The University of Texas at Austin, USA.
- 2010 BA in Geography, The Ohio State University at Columbus, USA.

#### **Professional Qualifications / Memberships**

2020 - Present	Singapore National Representative, International Association of Geomorphologists (IAG)	USA
2017 - Present	Member, Asia Oceania Geoscience Society (AOGS)	Singapore
2011 - Present	Member, American Association of Geographers (AAG)	USA
2011 - Present	Member, American Geophysical Union (AGU)	USA

#### Summary of Working Experience

Jul 2019 - Present	Assistant Professor, Earth Observatory of Singapore, National Institute of Education and Asian School of the Environment, NTU
Sep 2017 - Jun 2019	Research Fellow, Earth Observatory of Singapore, NTU Affiliated Faculty, Department of Geography and the Environment, University of Texas at Austin
Aug 2011 - Aug 2017	Graduate Research Fellow/Teaching Assistant, The University of Texas at Austin, USA
Jan 2010 - Dec 2010	Undergraduate Researcher, The Ohio State University, USA
Jun 2005 – Jun 2007	Administrative Officer, 52 Division-211 Regiment, Republic of Korea Army

#### **Academic Honours and Awards**

Year	Academic Honour / Award
2023	NIE Research Excellence Award
2022	APEC Science Prize for Innovation, Research and Education (ASPIRE), nominated from NTU, Singapore
	NTU Research Excellence Award (Young Investigator), nominated to NTU, Singapore.
2018	Outstanding Dissertation Award (awarded to three doctoral graduates in 2017 after university-wide competition), Office of Graduate School, University of Texas at Austin.
2017	<b>KAGES Student Leadership Award,</b> Korean-American Association of Geospatial Technologies and Environmental Sciences.

2016	<b>Dean's Prestigious Fellowship Supplement,</b> Office of Graduate School, University of Texas at Austin.
	<b>David Bruton Jr. Endowed Fellowship,</b> Office of Graduate School, University of Texas at Austin.
2015	<b>The Achievement Award</b> for recognition for excellence in research, publication, and institution building, <i>Department of Geography and the Environment, University of Texas at Austin.</i>
	<b>Continuing Graduate School College Fellowship</b> , Department of Geography and the Environment, University of Texas at Austin.
	Tinker Field Research Grant, LILLAS, University of Texas at Austin. USD.
	<b>Veselka Field Research Grant</b> , <i>Department of Geography and the Environment, University of Texas at Austin.</i>
	<b>Graduate Students Scholarship</b> , <i>LILLAS Benson Brazil Center, University of Texas at Austin.</i>
	Sim Travel Award, Korean-American Association of Geospatial Technologies and Environmental Sciences (KAGES).
	Winner of the Student Paper Competition (PhD Level), Water Resources Specialty Group (WRSG) of Association of American Geographers (AAG) (prize USD \$ 500).
	<b>Best Paper Award</b> , Latin America Specialty Group (LASG) of Association of American Geographers (AAG) (prize USD \$ 300).
	M. Gordon "Reds" Wolman Doctoral Student Research Award, Geomorphology Specialty Group (GSG), Association of American Geographers (AAG) (prize USD \$ 500).
2014	<b>Graduate Continuing Fellowship</b> , Office of Graduate School, University of Texas at Austin.
	<b>Professional Development Award</b> . Office of Graduate School, University of Texas at Austin.
2013	Google Earth Pro and Google Earth Engine Grants.
	<b>Travel Grant</b> , Department of Geography and the Environment, University of Texas at Austin.
2012	<b>Travel Grant</b> , Department of Geography and the Environment, University of Texas at Austin.
	<b>Pixoneer Scholarship Award</b> , Korean-American Association of Geospatial Technologies and Environmental Sciences (KAGES).

#### **RESEARCH SUMMARY**

#### Key Areas of Research

• Geomorphology; Hydrology; Remote sensing; Human-environment interactions

### **Editorship**

#### Associate Editor, Journal of Hydrology (IF 6.7)

Editorial board, Science of the Total Environment (IF 10.8), Journal of Environmental Management (IF 8.9)

#### SOURCE OF **PROJECT TITLE** YEAR DETAILS **GRANT/ ROLE** MOE ACRF TIER **Climate Transformation** 2023-To develop a climate research center **3C/ PROJECT PI** Hub (CTH) of Singapore 2029 within NTU that focuses on comprehensive aspects of climate change processes, impacts and management **MOE ACRF TIER** A novel approach to 2023-To develop a novel approach to 1/PI 2026 quantitatively decouple several decoupling multiple environmental pressures environmental pressures that contributes of salinity intrusion in to saline water intrusion in the Mekong Mekong Delta Delta using hydrodynamic modeling **MOE ACRF TIER** 2023-Sand mining in Southeast To develop a novel sand mining 2/ PI Asia: Monitoring System, 2026 monitoring system that will allow for sand the first budget and to be extracted at rates that minimize sustainable harvesting environmental damage. **MOE ACRF TIER** Impacts of Environmental 2021-To evaluate the impacts of environmental 2/ PI Pressures on Livelihood 2024 pressures on the livelihoods of farmers Transformations in the who are facing the perennial threats of Mekong Delta climate change, and other human activities. EOS SEED 2022-Mapping sand mining To develop a novel semi-automated Deep **GRANT/ PI** budget in the Mekong 2023 Learning-based methodology that enables River with Deep Learning monitoring of sand mining activities in rivers. MOE ACRF TIER Leaking Pollutants: 2020-To improve our understanding of the 1/ PI Investigating how the 2023 current environmental vulnerability in Johor Johor River sediment River, so that we can effectively deal with affects Singapore's the potential pollution incidences in coastal water quality Singapore. **MOE ACRF TIER** Geography of sand 2021-To assess the geographic distribution of 1/ PI mining in Asia and its 2023 sand demand and supply, and its environmental impacts environmental consequences. SUG-NAP 2019-Hydrology, Sediment To develop a research program on Fluxes and Floods in 2022 Sundaland that investigates the

#### Research Funding as Principal Investigator (PI)

Chao Phraya and Mekong

environmental vulnerability of river basins

#### **Citation Summary**

as of Sept 15, 2022

	Citations	h-index
Google Scholar	<mark>1,813 (total)</mark> 587 (in 2022)	19

#### Publications (in chronological order, starting with the most recent)

\*denotes corresponding author signifying my role as a supervisor/leader of the project/paper.

#### **Journal Articles (Refereed)**

- \*Alcântara, E., Marengo, J. A., Mantovani, J., Londe, L., San, R. L. Y., Park, E., ... & Nobre, C. (2022). Deadly disasters in Southeastern South America: Flash floods and landslides of February 2022 in Petrópolis, Rio de Janeiro. *Natural Hazards and Earth System Sciences Discussions (IIF 4.6)*, 1-27. Minor revision submitted.
- **62.** Tran, D. D. et al (2023). Adaptive capacity of high and low dyke farmers to hydrological changes in the Mekong Delta. *Environmental research (IF 8.4)*
- \*Tran, D. D., Park, E., Tran, T. A., Vo, T. T., & Le, P. T. (2023). Socio-hydrological trade-offs arising from triple cropping in the Vietnamese Mekong Delta: Revisiting environmental impacts and adaptation pathways. *Environmental Technology & Innovation (IF 7.8)*, 29, 102987.
- Yuen, K. W., Park, E., Hazrina, M., Taufik, M., Santikayasa, P., Latrubesse, E., & Lee, J. S. H. (2023). A Comprehensive Database of Indonesian Dams and Its Spatial Distribution. *Remote Sensing (IF 5.4)*, 15(4), 925.
- **59.** Hudson, P. F., & Park, E. Lowland rivers: Geomorphology, human impacts, and management. *Earth Surface Processes and Landforms (IF 4.0)*.
- Loc, H. H., Emadzadeh, A., Park, E., Nontikansak, P., & Deo, R. C. (2023). The Great 2011 Thailand flood disaster revisited: Could it have been mitigated by different dam operations based on better weather forecasts?. *Environmental research (IF 8.4)*, 216, 114493.
- Guan, Q., Feng, L., Tang, J., Park, E., Ali, T. A., & Zheng, Y. (2022). Trends in river total suspended sediments driven by dams and soil erosion: A comparison between the Yangtze and Mekong rivers. *Water Resources Research (IF 6.2)*, *58*(10), e2022WR031979.
- **56.** Diep, N. T. H., Loc, H. H., Nguyen, C. T., Park, E., & Tran, T. (2022). Spatial-social evaluations of ecosystem services of adaptive aquaculture models using SAR and multivariate analyses: a case in the Vietnamese Mekong Delta. *Environmental Monitoring and Assessment (IF 3.3)*, *194*(Suppl 2), 778.
- Niu, K., Qiu, J., Cai, S., Zhang, W., Mu, X., Park, E., & Yang, X. (2022). Use of a MODIS Satellite-Based Aridity Index to Monitor Drought Conditions in the Pearl River Basin from 2001 to 2021. *ISPRS International Journal of Geo-Information (IF 3.1)*, *11*(11), 541.
- \*Ang, W. J., Park, E., & Yang, X. (2022). Geomorphic control on stage-area hysteresis in three of the largest floodplain lakes. *Journal of Hydrology (IF 6.7)*, 614, 128574.
- Ahmed, F., Loc, H. H., Park, E., Hassan, M., & Joyklad, P. (2022). Comparison of Different Artificial Intelligence Techniques to Predict Floods in Jhelum River, Pakistan. *Water (IF* 3.5), 14(21), 3533.

- **52.** \*Pradipta et al. (2022). Mathematical modeling-based management of sand trap throughout operational and maintenance period (A case study: Pengasih Irrigation Network, Indonesia). *Water (IF 3.5)*, MDPI (2073-4441).
- Chen, M., Carrasco, G., Park, E., Morgan, K., Tay, S. H. X., Tanzil, J., ... & Boyle, E. A. (2022). Monsoonal variations of lead (Pb) in coastal waters around Singapore. *Marine Pollution Bulletin (IF 7.0)*, 179, 113654 (ISSN 0025-326X).
- **50.** Pradhan, P., Pham, T. T. H., Shrestha, S., Loc, H. H., & Park, E. (2022). Projecting the impact of human activities and climate change on water resources in the transboundary Sre Pok River Basin. *Climatic Change (IF 5.2)*, *172*(3), 1-23 (ISSN 1573-1480).
- 49. \*Kumar, S., Amarnath, G., Ghosh, S., Park, E., Baghel, T., Jingyu, W., & Belbase, D. (2022). Assessing the performance of the satellite-based precipitation products (SPPs) in the datasparse Himalayan terrain. *Remote Sensing (IF 5.3)*, MDPI (ISSN 2072-4292).
- Trang, N. T. T., Trang, N. T. Q., Loc, H. H., & Parke, E. (2022). Mainstreaming ecotourism as an ecosystem-based adaptation in Vietnam: insights from three different value chain models. *Environment, Development and Sustainability (IF 4.0)*, 1-19 (1573-2975).
- Correa, D. B., Alcântara, E., Libonati, R., Massi, K. G., & Park, E. (2022). Increased burned area in the Pantanal over the past two decades. *Science of the Total Environment (IF* 10.8), 835, 155386 (0048-9697).
- Fleischmann, A. S., Papa, F., Fassoni-Andrade, A., Melack, J. M., Wongchuig, S., Paiva, R. C. D., ... & Collischonn, W. (2022). How much inundation occurs in the Amazon River basin? *Remote Sensing of Environment (IF 13.8)*, 278, 113099 (0034-4257).
- **45.** Jang, M. T. G., Alcântara, E., Rodrigues, T., Park, E., Ogashawara, I., & Marengo, J. A. (2022). Increased chlorophyll-a concentration in Barra Bonita reservoir during extreme drought periods. *Science of the Total Environment (IF 10.8)*, *843*, 157106 (0048-9697).
- \*Tran, D. D., Park, E., Tuoi, H. T. N., Thien, N. D., Tu, V. H., Ngoc, P. T. A., ... & Quang, C. N. X. (2022). Climate change impacts on rice-based livelihood vulnerability in the lower Vietnamese Mekong Delta: Empirical evidence from Can Tho City and Tra Vinh Province. *Environmental Technology & Innovation (IF 7.8)*, 28, 102834 (2352-1864).
- **43.** \*Gruel, R., Park, E., et al. (2022). New systematically measured sand mining budget for the Mekong Delta reveals rising trends and significant volume underestimations. *International Journal of Applied Earth Observation and Geoinformation (IF 7.7)* (1569-8432).
- Pumjan, S., Long, T., Ho, HL., & Park, E. (2022). Deep well injection for the waste brine disposal solution of potash mining in Northeastern Thailand. *Journal of Environmental Management (IF 8.9)*, 114821 (0301-4797).
- Le, A. N., Tran, D. D., Thong, N., Van, C. T., Vinh, D. H., Au, N. H., & Park, E. (2022). Drastic variations in estuarine morphodynamics in the Southern Vietnam: Investigating riverbed sand mining impact through hydrodynamic modelling and field controls. *Journal of Hydrology (IF* 6.7), 127572 (0022-1694).
- Ho, H. L., Vu, H. S., Tran, D. D., Park, E., & Giang, A. D. (2022). Mapping volumetric soil moisture in the Vietnamese Red River Delta using Landsat 8 images. *Journal of Spatial Science (IF 1.8)*, 1-17 (1449-8596).
- \*Park, E., Ho, H. L., Van Binh, D., Kantoush, S., Poh, D., Alcantara, E., ... & Lin, Y. N. (2022). Impacts of agricultural expansion on floodplain water and sediment budgets in the Mekong River. *Journal of Hydrology (IF 6.7)*, 605, 127296 (0022-1694).
- **38.** \*Hui, T. R. (URECA student), Park, E., Loc, H. H., & Tien, P. D. (2022). Long-term hydrological alterations and the agricultural landscapes in the Mekong Delta: Insights from remote sensing and national statistics. *Environmental Challenges (IF 2.6)*, 100454 (2667-0100).
- \*Koh, Y. F. (FYP student), Loc, H. H., & Park, E. (2022). Towards a "City in Nature": Evaluating the Cultural Ecosystem Services Approach Using Online Public Participation GIS to Support Urban Green Space Management. *Sustainability (IF 3.9)*, *14*(3), 1499 (2071-1050).
- **36.** Zhang, W., Cheng, Z., Qiu, J., Park, E., Ran, L., Xie, X., & Yang, X. (2021). Spatiotemporal Changes in Mulberry-Dyke-Fish Ponds in the Guangdong-Hong Kong-Macao Greater Bay Area over the Past 40 Years. *Water (IF 3.5)*, *13*(21), 2953 (2073-4441).

- \*Ang, W. (URECA student awarded 2021 URECA Research Excellence Award) and Park, E. (2021) Mapping floodplain bathymetry in the middle-lower Amazon using inundation frequency and field control. *Geomorphology (IF 4.4)* (0169-555X).
- Alcantara et al. (2021) A satellite-based investigation into the algae bloom variability in large water supply urban reservoirs during COVID-19 lockdown. *Remote Sensing Applications: Society and Environment (IF 3.4)*. (2352-9385).
- **33.** \*Loc, H. H., Lixian, M. L., Park, E., Dung, T. D., Shrestha, S., & Yoon, Y. J. (2021). How the saline water intrusion has reshaped the agricultural landscape of the Vietnamese Mekong Delta, a review. *Science of the Total Environment (IF 10.8)*, 794, 148651 (0048-9697).
- \*Lin. N., Park, E., Wang, Y., Quek, et al. (2021). The 2020 Hpakant jade mining failure in Myanmar: A multi-satellite investigation of the slope failure. *ISPRS P&RS (IF 11.8)*. (0031-8663).
- \*Park, E., Loc, H., Binh, D. & Kantoush, S. (2021). The worst 2020 saline water intrusion disaster of the past century in the Mekong Delta: Impacts, causes, and management implications, *Ambio (IF 6.9)*. (1654-7209).
- **30.** \*Yee, J. (FYP student), Loc, H., & Park, E. (2021) Socio-geographical evaluation of ecosystem services in an ecotourism destination: PPGIS application in Tram Chim National Park, Vietnam. *Journal of Environmental Management (IF 8.9)*. (0301-4797).
- Qiu, J., Cao, B., Park, E., Yang, X., Zhang, W., & Tarolli, P. (2021). Flood Monitoring in Rural Areas of the Pearl River Basin (China) Using Sentinel-1 SAR. *Remote Sensing (IF* 5.3), 13(7), 1384 (ISSN 2072-4292)).
- Contador, T. M., Alcântara, E., Rodrigues, T., & Park, E. (2021). Remote sensing of water transparency variability in the Ibitinga reservoir during COVID-19 lockdown. *Remote Sensing Applications: Society and Environment (IF 3.4)*, 22, 100511 (2352-9385).
- 27. Latrubesse, E., Park, E. & Kastner, K. (2021). The Ayeyarwady River (Myanmar): Washload transport and its global role among rivers in the Anthropocene. *PlosOne (IF 3.8)* (1932-6203).
- 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 (IF 6.9)*, 48, 101245 (2212-0416).
- \*NG, WX. (FYP student), & Park, E. (2021). Shrinking Tonlé sap and the recent intensification of sand Mining in the Cambodian Mekong River. *Science of the Total Environment (IF* 10.8), 146180 (0048-9697).
- \*Loc, H. H., Van Binh, D., Park, E., Shrestha, S., Dung, T. D., Son, V. H., ... & Seijger, C. (2021). Intensifying saline water intrusion and drought in the Mekong Delta: From physical evidence to policy outlooks. *Science of the Total Environment (IF 10.8)*, 757, 143919 (0048-9697).
- \*Park, E., Lim, J., Ho, H. L., Herrin, J., & Chitwatkulsiri, D. (2021). Source-to-sink sediment fluxes and budget in the Chao Phraya River, Thailand: A multi-scale analysis based on the national dataset. *Journal of Hydrology (IF 6.7)*, 125643 (0022-1694).
- Rotta, L., Alcântara, E., Park, E., Bernardo, N., & Watanabe, F. (2021). A single semianalytical algorithm to retrieve chlorophyll-a concentration in oligo-to-hypereutrophic waters of a tropical reservoir cascade. *Ecological Indicators (IF 6.2)*, *120*, 106913 (1470-160X).
- Alcântara, E., Mantovani, J., Rotta, L., Park, E., Rodrigues, T., Carvalho, F. C., & Souza Filho, C. R. (2020). Investigating spatiotemporal patterns of the COVID-19 in São Paulo State, Brazil. *Geospatial Health (IF 1.7)*, *15*(2). (1970-7096).
- \*Park, E., Emadzadeh, A., Alcântara, E., Yang, X., & Ho, H. L. (2020). Inferring floodplain bathymetry using inundation frequency. *Journal of Environmental Management (IF* 8.9), 273, 111138 (0301-4797).
- \*Loc, H. H., Park, E., Chitwatkulsiri, D., Lim, J., Yun, S. H., & Maneechot, L. (2020). Local rainfall or river overflow? Re-evaluating the cause of the Great 2011 Thailand flood. *Journal* of Hydrology (IF 6.7), 589, 125368 (0022-1694).

- Latrubesse, E. M., Park, E., Sieh, K., Dang, T., Lin, Y. N., & Yun, S. H. (2020). Dam failure and a catastrophic flood in the Mekong basin (Bolaven Plateau), southern Laos, 2018. *Geomorphology (IF 4.4)*, 362, 107221 (0169-555X).
- Rotta, L. H. S., Alcantara, E., Park, E., Negri, R. G., Lin, Y. N., Bernardo, N., ... & Souza Filho, C. R. (2020). The 2019 Brumadinho tailings dam collapse: Possible cause and impacts of the worst human and environmental disaster in Brazil. International *Journal of Applied Earth Observation and Geoinformation (IF 7.7)*, 90, 102119 (1569-8432).
- Binh, D. V., Wietlisbach, B., Kantoush, S., Loc, H. H., Park, E., Cesare, G. D., ... & Sumi, T. (2020). A Novel Method for River Bank Detection from Landsat Satellite Data: A Case Study in the Vietnamese Mekong Delta. *Remote Sensing (IF 5.3)*, 12(20), 3298 (2072-4292).
- Latrubesse, E. M., d'Horta, F. M., Ribas, C. C., Wittmann, F., Zuanon, J., Park, E., ... & Baker, P. A. (2020). Vulnerability of the biota in riverine and seasonally flooded habitats to damming of Amazonian rivers. Aquatic Conservation: *Marine and Freshwater Ecosystems (IF 3.3)*. (1052-7613).
- \*Park, E., Merino, E., W Lewis, Q., O Lindsey, E., & Yang, X. (2020). A pathway to the automated global assessment of water level in reservoirs with synthetic aperture radar (SAR). *Remote Sensing (IF 5.3)*, 12(8), 1353 (ISSN 2072-4292).
- **13.** \*Park, E. (2020). Characterizing channel-floodplain connectivity using satellite altimetry: Mechanism, hydrogeomorphic control, and sediment budget. *Remote Sensing of Environment (IF 13.8)* (0034-4257).
- \*Park, E., Ho, H., Tran, D., Yang, X., Alcantara, E., Merino, E. & Son, V. (2020). Dramatic decrease in flood frequency of the Mekong Delta due to riverbed-mining and dyke construction. *Science of the Total Environment (IF 10.8)*. (0048-9697).
- Storozum, M., Lu, P., Wang, S., Chen, P., Yang, R., Ge, Q., Cao, J., Wan, J., Wang, H., Qin, Z., Liu, H. & Park, E. (2020). Geoarchaeological evidence of the AD 1642 Yellow River flood that destroyed Kaifeng, a former capital of dynastic China. *Scientific Reports (IF 5.0)*, *10*(1), 1-12, 4.122. (2045-2322).
- Bernardo, N., Carmo, A., Park, E., & Alcântara, E. (2019). Retrieval of suspended particulate matter in inland waters with widely differing optical properties using a semi-analytical scheme. *Remote Sensing (IF 5.3), 11*(9), 2283, 4.118 (ISSN 2072-4292).
- **9.** \*Park, E. & Latrubesse, E. (2019). A geomorphological assessment of wash-load sediment fluxes and floodplain sediment sinks along the lower Amazon River. *Geology (IF 6.3)*, 47(5), 403-406, 5.0 (1943-2682).
- 8. \*Park, E., Lewis Q. and Sanwlani, N. (2019). Large lakes gauging using fractional imagery. *Journal of Environmental Management (IF 8.9), 231*(null), 687-692, 4.865 (0301-4797).
- Yang X., Lu, X., Park, E., and Tarolli, P. (2019). Impacts of climate change on lake fluctuations in the Hindu-Kush-Himalaya-Tibetan Plateau. *Remote Sensing (IF 5.3)*, 11(9), 1082, 4.1 (ISSN 2072-4292).
- 6. Lewis, Q. and Park, E. (2018). Volunteered Geographic Videos (VGV) in physical geography: Data mining from YouTube. *Annals of the American Association of Geographers (IF 4.0)*, *108*, 52-70, 2.8 (2469-4452).
- Latrubesse, E. M., Arima, E., Dunne, T., Park, E., Baker, V., d'Horta, F., Wight, C., Wittmann, F., Zuanon, J., Baker, P., Ribas, C., Norgaard, R., Filizola, N., Ansar, A., Flyvbjerg, B. and Stevaux, J. (2017). Damming the rivers of the Amazon Basin. *Nature (IF 69.5),* 546, 363-369 (0028-0836).
- **4.** \*Park, E. and Latrubesse, E. M. (2017). Hydrogeomorphic complexity of the lower Amazon River floodplain and hydrological connectivity assessed using remote sensing and field measurements. *Remote Sensing of Environment (IF 13.8), 198*(null), 321-332, 8.2 (0034-4257).
- **3.** Restrepo, J. D., Park, E., Aquinos, S. and Latrubesse, E. M. (2016). Coral reefs chronically exposed to river sediment plumes in the southwestern Caribbean: Rosario Islands, Colombia. *Science of the Total Environment (IF 10.8)*, *553*, 316-329 (0048-9697).

- 2. \*Park, E. and Latrubesse, E. M. (2015). Surface water types and sediment distribution patterns at the confluence of mega rivers: Solimões-Amazon and Negro rivers junctions. *Water Resources Research (IF 6.2)*, *51*, 6197-6213 (1944-7973).
- \*Park, E. and Latrubesse, E. M. (2014). Modeling suspended sediment distribution patterns of the Amazon River using MODIS data. *Remote Sensing of Environment (IF 13.8)*, 147, 232-242 (0034-4257).

#### **Chapters in Scholarly Books**

1. Latrubesse, E., Park, E., Ramonell, C., Sounny Slitine, A. & Cafaro. E. (In-press). The Chaco Megafans. In Wilkinson, M & Latrubesse, E. (Eds.), *MEGAFANS—A GLOBAL SYNTHESIS* (pp. na). Cambridge: Cambridge University Press.

#### **Chapters from Academic References**

1. Latrubesse, E. & Park, E. (2017). Rivers and streams. In Marston, R. (Ed.), *The International Encyclopedia of Geography – People, the Earth, Environment, and Technology* (pp. 1-8). NYC: Wiley-Blackwell.

#### Editorship of Special Issues of Journal

- 1. Park, E. & Hudson, P. (Ed.) (2021). *Earth Surface Processes and Landforms (ESPL),* Lowland rivers: Geomorphology, sustainable management and ecosystem services.
- 2. Park, E. & Alcantara, E. (Ed.) (2020). *Remote Sensing*, Remote Sensing of natural and manmade disaster. 1 (nn).

#### **Research/Technical Reports**

1. Lee, C., Kim, J., Park, E. and Kastner, K. (2016). *Analysis of river flow using ADCP post-processing software: ADCPtool*. Korea.

#### **Invited Seminars**

2022	Tropical Rivers in the Anthropocene: Amazon, Mekong and beyond. Department of Geography, <i>National University of Singapore (NUS)</i> , Singapore. Host: Dr. Dongfeng Li.
2021	Human impacts and morphodynamics of the Tropical Rivers, School of Environmental Science and Engineering, <i>Southern University of Science and Technology (SUSTECH</i> ), China. Host: A/P Lian Feng.
2021	Tropical Rivers in the Anthropocene, Earth Observatory of Singapore (EOS), <i>Nanyang Technological University (NTU)</i> , Singapore. Host: A/P Xianfeng Wang.

#### **Conference Presentations**

Park, E., Gruel, C. R., Switzer, A. D., Kumar, S., Loc, H. H., Kantosh, S., ... & Feng, L. (2022, December). The First Systematically Estimated Sand Mining Budget for the Mekong Delta. In *Fall Meeting 2022*. AGU.

Yuen, K. W., Park, E., Tran, D. D., Loc, H. H., Switzer, A. D., Feng, L., & Wang, J. (2022, December). Extent of widespread illegal sand mining in the Mekong Delta. In *Fall Meeting 2022*. AGU.

Park, E., Lin, YNN., Sieh, K. & Latrubesse, E. (2021, Feb) Dam failure and the catastrophic flood in the Bolaven Plateau, 2018. International Association of Geomorphologists (IAG) Geomorphology Week, Webinar.

Park, E. (2020, Dec) Investigating the dam failure in Southern Laos: Mechanism. *Asian Institute of Technology (AIT)-Beijing Normal University (BNU) Joint Conference on Environmental Hazards*, Webinar (Invited).

Park, E. and Latrubesse, E. M., Aquino, S. and Lim, Jana. (2018, Dec) Recent fluvial bar morphodynamics in the lower Irrawaddy River in Myanmar. *American Geophysical Union (AGU) Fall Meeting*, Washington DC, USA.

Park, E., Latrubesse, E. M. and Aquino, S. (2018, April) Sediment transport patterns and environmental issues in Irrawaddy River, Myanmar. *American Association of Geographers (AAG)*, New Orleans, USA.

Park, E. and Latrubesse E. M. (2017, Nov) Distribution of sediment sinks along the Amazon River: An *in-situ* geomorphic assessment. *International Association of Geomorphologists (IAG),* India.

Park, E. and Latrubesse, E. M. (2017, Dec) Morphodynamics at the confluence of mega rivers: Amazon and Madeira rivers. *American Geophysical Union (AGU) Fall Meeting*, New Orleans, USA.

Park, E. and Latrubesse, E. M. (2017, Aug) Rivers in Rivers: The Irrawaddy River: An initial assessment on suspended sediment transport and spatiotemporal suspended sediment distribution patterns. *Asia Oceania Geosciences Society (AOGS)*, Singapore.

Latrubesse, E. M. and Park, E. (2017, Aug) Are sediment loads of insular Southeast Asia overestimated? Clues from Borneo. *Asia Oceania Geosciences Society (AOGS)*, Singapore.

Park, E. and Latrubesse E. M. (2015, Sep) Suspended sediment distribution patterns of the Amazon River: impact of tributaries and channel-floodplain interactions. To be presented in *River, Coastal, and Estuarine Morphodynamics (RCEM)* 9<sup>th</sup> *Symposium*, Iquitos, Peru.

Park, E. and Latrubesse, E. M. (2015, Dec) Channel-floodplain sediment interactions along large rivers: hydrological connectivity and sediment budgets. *American Geophysical Union (AGU) Fall Meeting*, San Francisco, CA.

Park, E. and Latrubesse E. M. (2015, Apr) Modeling post-confluence sediment routing patterns in large rivers using MODIS data. *Association of American Geographers (AAG) Annual Meeting*, Chicago, IL.

Park, E. and Latrubesse, E. M. (2013, Apr) Mega-pattern analysis of suspended sediments distribution in the Amazon River using multi-temporal satellite imageries. *Association of American Geographers (AAG) Annual Meeting,* Los Angeles, CA.

Park, E. and Latrubesse, E. M. (2012, Dec) Mega-pattern analysis of suspended sediments distribution in the Amazon River using multi-temporal satellite imageries. *American Geophysical Union (AGU) Fall Meeting*, San Francisco, CA.

#### Media Exposure

2022	Measuring the real cost of sand mining in the Mekong, <i>Eco-Business</i>
	https://www.eco-business.com/opinion/measuring-the-real-cost-of-sand-
	mining-in-the-mekong/
2022	Interview on Malaysia flood, Channel 8, Singapore

	https://www.8world.com/stories/focus/global-warming-affecting-food- production-1700801
2021	Article featured at Nature News
	https://www.nature.com/articles/d41586-021-01740-2
2021	Der Mekong in Kambidscha – ein okolo-gischer Reisebericht (Germany), <i>Riffreporter.de</i>
	https://www.riffreporter.de/de/umwelt/mekongwasser-klimawandel- staudaemme-sand

# TEACHING SUMMARY

Key	Courses	<b>Taught</b>	(Current	Year	and	Last 2	2 years)

Course Code	Course Title	Academic Year	Course Level	<b>Type</b> (Lecture, Tutorial, etc.)	Semester
MAS 919	GIS and Geospatial Learning in Sustainability	AY21 – AY22	PG	Lecture and Tutorial	2
AAG 23C	Tropical Geomorphology	AY21 – AY22	UG	Lecture and Tutorial	2
AAG 28H	Intro to Geographic Information System	AY21 – AY22	UG	Lecture and Tutorial	1
AAG 10A	Elements in Physical Geography	AY21 – AY22	UG	Lecture and Tutorial	1
AAG 23A	Statistics in Geography	AY20 – AY21	UG	Lecture and Tutorial	2
AAG 10C	Techniques in Geography	AY20 – AY21	UG	Lecture and Tutorial	2
AAG 40D	Academic Exercise: Geography	AY20 – AY21	UG	Lecture and Research supervision	2
AAG 40C	Geographical Methods and Fieldwork	AY20 – AY21	UG	Lecture and Research supervision	1
AAG 23C	Tropical Geomorphology	AY19 – AY20	UG	Lecture and Tutorial	2
AAG 23D	Biogeography and soils	AY19 – AY20	UG	Lecture and Tutorial	1
MAS 841	Field inquiry in Physical Geography	AY19 – AY20	PG	Lecture and Tutorial	1

### Academic Supervision and Mentoring

#### PhD students

Currentl	Currently Supervising					
3	Sonu Kumar	2020- present	Sand mining budget in Southeast Asian rivers			
2	Yilin Zhang	2020- present	Climate change and rainfall patterns in Southeast Asia			
1	Theodora Hui Yian Lee	2019 - present	Identifying environmental surrogates for environmental pollution in Southeast Asia			

## Masters students (By Research Only)

Currentl	y Supervising		
1	Danielle Poh Yi Le	2020 - present	Climate change, dams and sand mining: investigating cause of the Tonle Sap

# Post-doctoral fellow

In employment (as at Current Year)					
1	Dung Duc	Research Fellow	2022 -	Environmental	-
	Tran		present	impacts in the	
				Mekong	

# **Research Staffs**

In employment (as at Current Year)					
5	Frances Lam	Research	2022 –	Deep Learning for	
		Assistant	present	mining budget	
4	Kai Wan	Research	2020 -	Environmental	-
	Yuen	Associate	present	impacts in the	
				Mekong	
3	Rachel Lau	Research	2021 –	Johor River water	_
		Assistant	present	quality	
2	Berwyn Kwek	Research	2021 -	Geography of	-
		Assistant	present	Sand mining	
1	Jana Lim	Research	2019-2020	Johor River water	_
		Assistant		quality	

# **Teaching Awards / Recognition**

Year	Teaching Award / Recognition
2021 –	Mentored UG student (Wei Jing Ang, ASE Y3) who have won URECA
present	Research Excellence Award and URECA Publication Award
2021 –	Mentored an UG students whose six (6) thesis is published in Q1 journal.
present	
2021	Innovative approach to overcome pandemic restrictions of overseas
	fieldwork for 8 FYP student is featured at the NIEWES.

# SERVICE SUMMARY

### Service Awards / Recognition

Year	Role
2018	Outstanding Reviewer Award, <i>Advances in Water Resources</i> (SCI, IF: 5.4)
2017	KAGES Student Leadership Award, <i>Korean-American Association of Geospatial Technologies and Environmental Sciences</i> .

# Academic Community

Period of appointment	Role
2022 – present	Associate Editor, Journal of Hydrology (IF 6.7)
2021 - present	Editorial board member, Science of the Total Environment (IF 10.8) and Journal of Environmental Management (IF 8.7)
2021 - present	Guest editor of a special issue in Journal ESPL (IF 4.5)
2020 - present	National representative of Singapore for <i>International Association of Geomorphologists</i> ( <i>IAG</i> ) – the most important academic organization in the field of <i>Geomorphology</i> .
2017 - present	Guest editor of three special issues in Journal <i>Remote Sensing</i> (IF: 5.3)

#### **Ministry of Education**

Period of appointment	Role
2021 - present	Exco member of Geography Teachers Association (GTA), Academy of Singapore Teachers (AST).

# Other Service

Date	Role
2015 - present	Peer-reviewer of >100 academic journal (including <i>Nature</i> ).

#### **APPENDIX**

#### **Citation Report**

≡ Google Scholar

	Edward Park Assistant Professor of Physical Geography,		FOLLOW	Cited by
	Nanyang Technological University Verified email at ntu.edu.sg - <u>Homepage</u> Environmental management Fluvial geomorpholog Tropical rivers Remote sensing			Citations h-index i10-index
TITLE		CITED BY	YEAR	
Damming the river EM Latrubesse, EY Ari Nature 546 (7658), 363	<b>'s of the Amazon basin</b> ma, T Dunne, E Park, VR Baker, FM d'Horta, 3-369	557	2017	
The 2019 Brumadi impacts of the wor LHS Rotta, E Alcântara International Journal o 102119	inho tailings dam collapse: Possible cause and st human and environmental disaster in Brazil a, E Park, RG Negri, YN Lin, N Bernardo, fApplied Earth Observation and Geoinformation 90,	179	2020	2016 2017 20
Modeling suspend Amazon River usir E Park, EM Latrubesse Remote Sensing of En	ed sediment distribution patterns of the ng MODIS data <sup>9</sup> vironment 147, 232-242	156	2014	Public acce
The hydro-geomor River floodplain an remote sensing an E Park, EM Latrubesse Remote Sensing of En	phologic complexity of the lower Amazon d hydrological connectivity assessed by d field control evironment 198, 321-332	94	2017	not available Based on fun
	1			Co-authors



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Based on Google Scholar (visited Feb 14 2023) https://scholar.google.com/citations?hl=en&user=FZ1Ov9EAAAAJ&view\_op=list\_works