THE UNIVERSITY OF TENNESSEE KNOXVILLE

April 21, 2023

Search Committee – Associate Dean for Academic Programs position
College of Arts and Sciences, University of Tennessee at Knoxville

Dear Members of the Search Committee,

Please accept this cover letter and my attached CV for consideration for the position of Associate Dean for Academic Programs (ADAP), College of Arts and Sciences (CAS).

Higher education is at a critical juncture. Leaders in higher education must maintain a rigorous academic experience and actively ensure that it is inclusive and inviting while facing continued challenges from the long-lasting impact of the COVID-19 pandemic, threats of a looming US recession, the challenges from open Artificial Intelligence (e.g., chatGPT), and global political instability. However, it is also a time of new possibilities where ever-shifting technologies create the potential for more innovative, collaborative, dynamic, and engaging scholarship. To fully realize these possibilities at UTK and CAS, we must take a long hard look at the current institutional structures and practices, making changes tactically and strategically as needed. Recognizing the challenges as well as the academic promise, I welcome the opportunity to bring my planning and management skills, knowledge, and experience to the graduate and undergraduate programming in the College as well as to the ADAP's other responsibilities to enhance the Dean's cabinet.

During my time as a Professor and as the current Associate Head of the Geography & Sustainability Department, my leadership style has been defined by a strong emphasis on strategic, systematic planning and management. This leadership style has been complemented by my belief in the importance of effective communication and strong teamwork. The following are key examples over my more than 15-year career at UTK that best illustrate the leadership approach I take in efforts to combine traditional methods with fast-changing technology in proactively-engaging research, teaching, and outreach to meet the challenges of the digital age.

Recently, I led and coordinated the creation of the new Bachelor of Science in Geographic Information Science & Technology (GIS&T) program in the Geography & Sustainability Department. GIS&T is an interdisciplinary field encompassing such wide-ranging areas as transportation logistics, network analysis, emergency management, urban planning, public health, resource and environmental management, location intelligence, and energy analytics, among others. In Tennessee and throughout the US, demand for well-trained GIS&T professionals currently exceeds the supply of graduates in this area. This presents UTK, with its unique location and land grant mission, the opportunity and responsibility to provide quality education and training in this field to residents across Tennessee. With these goals in mind, we laid the groundwork for the program in 2018 and initiated the proposal in Fall 2019, all the while working closely with the College, Office of the Provost, Office of Academic Affairs and Student Success, the UT System, and the Tennessee Higher Education Commission (THEC). Our proposal was progressing smoothly until the pandemic hit Tennessee in Spring 2020. This unforeseen event led to

THEC requiring changes to the proposal to meet the new pandemic education model and an unprecedented site visit change from on-site to virtual. To accommodate for these challenges, I coordinated an all-out effort preparing and organizing the onsite visit of THEC officials and outside reviewers and the subsequent after-visit follow-ups, all completed successfully. These efforts allowed the new degree to officially be in the Undergraduate Catalog in the 2021-2022 academic year. Our proposal and preparation were recognized by the UT Office of Academic Affairs and Student Success as a model for other units to follow.

Currently, I serve as Chair of the Strategic Planning Committee (SPC), leading the effort to develop the 2023-2028 strategic plan for the Geography Department. In this capacity, I assigned committee members, myself included, into teams to work on six focus areas (undergraduate program, graduate program, teaching, research, outreach and services, and diversity, equity, and inclusion) and provided data relating to each area for each team to analyze and derive insights from. The SPC shared its findings in a draft report with the faculty in Fall 2022 and discussed it at a departmental retreat at the start of Spring 2023 with various activities (e.g., brainstorming, small group discussion). We plan to finalize the report at the end of this academic year, 2022-2023. Additionally, in the context of the Department's strategic plan, I have spearheaded three different 4+1 accelerated bachelor's/master's programs with GIS&T focus. I have greatly enjoyed my time heading the SPC and using my talents as a leader, coordinator, and a team player to ensure departmental growth is achieved effectively and smoothly.

When the COVID-19 pandemic hit Tennessee in Spring 2020 and most University activities went online, I, along with the Department Head, developed streamlined plans for faculty, staff, and graduate students to complete the semester and prepare for the 2020-2021 academic year. Part of the plans involved setting up mobile teaching stations and teaching studios in the Burchfiel and Walters buildings so that instructors could safely deliver online classes with reliable software and hardware. For courses with labs, I provided faculty and instructors during Summer 2020 with advice and support designing online labs that were launched in Fall 2020. As a result, all lab courses in Fall 2020 were successfully offered and enrollment levels in these courses were even higher than in Fall 2019. Throughout the course of the pandemic, I also developed and monitored a teaching backup roster for all courses, instructors, and graduate teaching assistants for the department. To prepare a workplace that met university-wide COVID-19 guidelines for Fall 2020, I was on campus day in and day out in Summer 2020 coordinating faculty and graduate students in setting up lab and office spaces in Walters Life Science Building. With my coordination, eight new office spaces and four large labs were set up in Walters before the start of Fall 2021. The realization of these tactical and strategic plans was integral in the success of Geography programs amid the COVID-19 pandemic.

Regarding my experience with graduate programming, I served for three years (2012-2015) as the Director of Graduate Studies of the Geography Department. During my tenure in this position, I was instrumental in transitioning the department's graduate application assessment system from a paper version to a fully online one that is more transparent and effective. In addition, I reached out to more colleges in the Southeast, including Historical Black Colleges and Universities in Tennessee. As a result, there was a sizable uptick in the number of graduate applications to the geography programs and greater representation in the application pool during my tenure. It was also through this position that I attained my familiarity and knowledge about the Graduate School's policies and practices, giving me the necessary skills to resolve incidents relating to graduate students and faculty. My knowledge about graduate programming also stems from the fact that I have served as an effective committee member for student theses and dissertations across UT's various departments (e.g., EPS, EEB, Anthropology, Civil & Environmental Engineering, Bredesen Center, School of Journalism and Electronic Media) and

campuses (e.g., UTK, UTIA). To this day, I still often serve as a resource person in the department for questions related to graduate programs and the Graduate School. On top of my involvement in graduate-level programming, I am also knowledgeable about undergraduate programs on campus through my service on the Natural Science Subcommittee, Undergraduate Council since 2019, as well as being proactively involved in the Geography & Sustainability Department's undergraduate program and newly-formed GIS&T BS degree.

Separate from my role as SPC chair, I currently oversee the department's long-term teaching plan where I have used my data science background to create a schedule that is based on years of metrics. To develop this schedule, I have conducted data analyses of enrollment, sections, lab versus non-lab, instructors, class time, etc., for all geography courses being offered in the last ten years. I also compared departmental data with similar figures from other departments who offer comparable courses (e.g., Anthropology, Sociology, Earth and Planet Sciences, and Ecology & Evolutionary Biology). With a data-backed scheduling plan, faculty can now more easily gain insights into the Department's strengths and weaknesses in teaching. While only being in place for a few years, this scheduling plan has already led to sizable class growth. This growth is most apparent in the enrollment in our 100-level geography classes where the rate of enrollment in the last several years is higher than rate of increase in the UTK undergraduate population. I will apply the same data-based strategic approach in the ADAP position when coordinating units in the College, making the most of available resources (e.g., instructors, GTAs, facilities) to ensure success as we transition into the new business model.

With respect to diversity, equity, and inclusion (DEI), I believe we are diverse because each of us is unique. An individual is a product of different characteristics, such as gender, race, disability, ethnicity, religion, sexual orientation, age, etc. As such, no one should be valued more or less based on any of those aspects. Respect is a two-way street and valuing diversity is the right thing to do. Furthermore, valuing diversity should not be only in words but put in action via equity and inclusion. Equity, in my opinion, means ensuring all individuals have what they need to participate and succeed and participate, taking into account different access to opportunities, status, and rights. Inclusion is creating an environment of belonging where everyone feels welcomed, supported, respected, and valued, and is able to contribute their best. That is my philosophy of diversity. With that, my commitment to DEI has been demonstrated by my past experiences in various endeavors. As a scholar often working in an interdisciplinary environment, I have seen firsthand bias toward diversity not only in the academic environment (e.g., unwelcoming, unfair and inequitable environment) but also in many aspects of life in our society, such as bias toward disability, sexual orientation, geography, etc. In essence, I am committed to making a difference in promoting DEI, from highlighting DEI in my research to practicing DEI in teaching, services, and outreach, ensuring that everyone is given opportunities to excel in their lives and their scholarly activities.

If I am fortunate to be selected and appointed as ADAP of CAS, strategically I will apply ***a transformation approach to develop an aspirational, shared vision for the undergraduate, graduate, and online curricula in the College***. The foundation for the approach includes *establishing a data-driven organization baseline, encouraging a collaborative operating environment* to get everyone involved, and *creating a sense of urgency for bold action*. Operationally, with a mindset of (re)thinking administrative operations from the ground up, I will spearhead projects to streamline and modernize administrative functions related to all academic programs and procedures in the College. I strongly believe such a strategic and operational approach will enable the College to deal with short-term challenges successfully and operate more efficiently, robustly, and resiliently in the long term.

Tactically, I will start several initiatives in Summer and Fall 2023 to make some early key impacts. Some of them are briefly described below:

- *VOLRAINWAVE – Vols Riding the Artificial INtelligence WAVE*: to proactively deal with and incorporate AI, in general, and chat bots, e.g., chatGPT, into undergraduate and graduate programs in CAS.
- *ENACA – ENhancing Academic Advising*: to build a data-driven, proactive and adaptive advising system, focusing on students in need, increasing the effectiveness of CAS advising services, and reducing the burden on academic advisors.
- *BSEPR: Boosting StudEnt Persistence Retention*: to systematically identify factors contributing to students' persistence and retention in undergraduate and graduate programs in CAS with the use of data-driven approaches, e.g., "survival analysis," data mining.
- *ENET: ENhance Excellence in Teaching*: to systematically identify factors contributing to excellence in teaching by CAS faculty and graduate teaching assistants at both undergraduate and graduate levels also with the use of data-driven approaches.

I would bring to the ADAP position a strategic and analytical leadership grounded in extensive knowledge and experience with the UTK and CAS systems coupled with a strong commitment to the University's mission. In a time of tremendous challenges but also abundant possibilities, the College will need to be innovative, collaborative, and entrepreneurial to be an active leader in shaping the future of higher education in Tennessee and beyond. In this context, I strongly believe in my ability to contribute to this leadership role in the Dean's cabinet.

I hope to have the chance to discuss my plan with the Search Committee further. Thank you for your consideration.

Sincerely yours,

Liem Tran, Ph.D.
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a. Professional Preparation

Institution	Program or Degree	Dates in Program	Degree
Pennsylvania State University	Postdoctoral training (integrated assessment)	1999 – 2003	
University of Hawai'i at Manoa	Ph.D. Geography	1995 – 1999	Ph.D.
University of Hawai'i at Manoa	M.A. Geography	1993 – 1995	M.A.
HoChiMinh City University	M.Eng. Environmental	1990 – 1992	M.Eng.
HoChiMinh City University	B.Eng. Civil*	1980 – 1984	B.Eng.

*Outstanding Graduate

Expertise: physical and environmental geography (focus on landscape ecology, hydrology, climatology, integrated modeling); decision-making science (focus on human-environment interactions); artificial intelligence techniques (focus on fuzzy theory and its application to environmental studies); spatial/quantitative analysis (focus on uncertainty assessment).

b. Appointments

Ranks Held	Institution	Department	Effective Date of Rank
Professor	University of Tennessee	Geography	2017-present
Professor	University of Tennessee	Bredesen Center for Interdisciplinary Research & Graduate Education	2020-present
Associate Professor	University of Tennessee	Geography	2010-2017
Associate Professor (adjunct)	University of Tennessee	Civil & Environmental Engineering	2015-2017
Assistant Professor	University of Tennessee	Geography	2006-2010

Assistant Professor	Florida Atlantic University	Geosciences	2003-2006
Adjunct Assistant Professor	Pennsylvania State University	Geography	2001-2003
Postdoctoral Research Associate	Pennsylvania State University	Center for Integrated Regional Assessment	1999-2003
Research Assistant	University of Hawai'i at Manoa	Geography	1996-1999
Lecturer	HoChiMinh City University	Center for Water Supply and Environment	1989-1992
Lecturer	HoChiMinh City University	Geophysics and Hydrogeology	1984-1989

c. Synergistic Activities

He has participated in several multi-disciplinary activities, such as:

- UTK Coronavirus-19 Outbreak Response Experts (CORE-19) team (April 2020-present): a network of researchers in public health, economics, public policy, agriculture, veterinary medicine, and other disciplines who seek to provide timely and evidence-based information for policymakers, industry, and the public on pressing questions regarding the global pandemic.
- Member of the Substance Misuse and Addiction Resource for Tennessee (SMART) Policy Network which was created in 2020 to support the University of Tennessee's efforts around substance misuse and abuse.
- Relationship between ENSO and water-born diseases in South Pacific countries (1997-1999); Human Dimension of Global Climate Change, NOAA; PI: Nancy Lewis (University of Hawaii); tasks: data analysis and modeling.
- Influence of forest fragmentation on watershed functions in Northern Vietnam (1997-1999); NSF project; PI: Jefferson Fox (East-West Center); tasks: hydrological/ecological field work, apply GIS and hydrological modeling to compute water/energy fluxes, water balance, runoff at watershed scale.
- Multi-objective optimization for community-state coordination of urban water, sanitation, and pollution control (1998-1999); World Bank project; PI: Mark Ridgley (University of Hawaii); tasks: develop optimization models that assist multi-stakeholders in allocating resources and contributions.
- Decision support system for coral reef management (1998-1999); Hawaii Coral Reef Initiative; PI: Mark Ridgley (University of Hawaii); tasks: develop model to link terrestrial fluxes with marine and coastal processes, link the model to a multi-objective decision support system.
- CIRA – Center for Integrated Regional Assessment; PI: C. Gregory Knight (Penn State University); tasks: develop integrated regional assessment model.

- HERO – Human Environment Regional Observatory Network Project (2000-2004); PI: Brent Yarnal (Penn State University); tasks: methodological development, geocomputation, interdisciplinary modeling.
- ReVA – EPA's Regional Vulnerability Assessment (2000-2020); Program Director: Elizabeth Smith; tasks: develop techniques for integration ecological indicators; assess uncertainty associated with thematic maps and ecological indicators.
- U.S. EPA's Future Midwest Landscapes Study (2008-2013). Directors: Elizabeth Smith and Randall Bruins; tasks: integrated modeling, integrated assessment, uncertainty analysis, decision-support tool development.

d. Teaching

2006-current	University of Tennessee at Knoxville, Geography Department; Courses: *Our Digital World, Weather, Climate, and Climate Change, Water Resources, First Steps in GIS Programing, Quantitative Methods in Geography, Geovisualization and Geographic Information Science, Intermediate Geographic Information Science, GIS in the Community, Geography of the Natural Environment, Environmental Integrated Assessment, GIS Environmental Modeling, Watershed Dynamics, Advanced quantitative methods in geography*.
2003-2006	Florida Atlantic University, Geoscience Department; Courses: *Water Resources, Weather and Climate, Environmental Issues in Atmospheric and Earth Science, Blue Planet, Coastal Hazards, Human-Environmental Systems*.
2002-2003	The Pennsylvania State University, Geography Department; Courses: GEOG 406 -*Human Use of Environment*, GEOG 410 - *Water Resources*.
1997-1998	University of Hawaii at Manoa, College of Social Sciences; Teaching Assistant; Course: *Statistics for Social Sciences*; Task: computer labs and assignments; Class Size: 50-70.
1989-1993	HoChiMinh City University, Center for Water Supply and Environment; Instructor; Course: *Introduction to Water Supply and Sanitation* (upper undergraduate level course); Class Size: 40-50.
1985-1989	HoChiMinh City University, Department of Geophysics and Hydrogeology; Instructor; Courses: *Introduction to Hydrogeology, Groundwater Dynamics and Modeling* (upper undergraduate level course); Class Size: 25-35.

e. Publications

Articles published in refereed journals

1. Giambelluca, T.W., **Tran, L.T**., Ziegler, A.D., and Menard, T.P. (1996). Soil-vegetation-atmosphere processes: simulation and field measurement for deforested sites in northern Thailand, *Journal of Geophysical Research*, v 101 n D20, 25,867-25,885.
2. Ziegler, A.D., Sutherland, R., and **Tran, L.** (1997). Influence of rolled erosion control systems on temporal rainplash response - A laboratory rainfall simulation experiment. *Land Degradation & Development*, vol. 8, 139-157.

3. Ridgley, M., Penn, D., and **Tran, L.T.** (1997). A multicriterion decision support for a conflict over stream diversion and land water reallocation in Hawaii. *Applied Mathematics and Computation,* v 83 n 2/3, 153-172.
4. Lewis, N., Hamnett, M., Prasad, U., **Tran, L**., and Hilton, A. (1998). Climate and health in the Pacific: Research in Progress. *Pacific Health Dialog* 5(1), 187-190.
5. Giambelluca, T.W., Nullet, M., Ziegler, A.D., and **Tran, L.** (2000). Latent and sensible energy flux over deforested land surfaces in the eastern Amazon and northern Thailand. *Singapore Journal of Tropical Geography*, v 21 n 2, 107-130.
6. Leung, P.S., and **Tran, L.T**.* (2000). Predicting shrimp disease occurrence: Artificial neural networks vs. logistic regression. *Aquaculture* 187, 35-49.
7. Leung, P.S, **Tran, L.T**., and Fast, A.* (2000). A logistic regression of risk factors for disease occurrence on Asian shrimp farms. *Diseases of Aquatic Organisms* 41, 65-76.
8. **Tran, L.T**., Ridgley, M.A., Duckstein, L., and Sutherland, R. (2002). Application of fuzzy logic-based modeling to improve the performance of the Revised Universal Soil Loss Equation. *Catena* vol. 47, no. ER3, pp. 203-226.
9. **Tran, L.T**., Knight, C.G., and Wesner, V. (2002) Drought in Bulgaria and atmospheric synoptic conditions over Europe. *GeoJournal*. 57: 149–157.
10. **Tran, L.T.,** and Duckstein, L. (2002a). Comparison of fuzzy numbers using a fuzzy distance measure. *Fuzzy Sets and Systems* 130(3):331-341.
11. **Tran, L.T.,** and Duckstein, L. (2002b). Multiobjective fuzzy regression with central tendency and possibilistic properties, *Fuzzy Sets and Systems* 130(1):21-31.
12. **Tran, L.T**., Knight, C.G., O'Neill, R.V., Smith, E.R., Riitters, K.H., and Wickham, J. (2002). Fuzzy decision analysis for integrated environmental vulnerability assessment of the Mid-Atlantic region, *Environmental Management* 29:845–859.
13. **Tran, L.T**., Knight, C.G., O'Neill, R.V., Smith, E.R, and O'Connell, M. (2003) Self-organizing maps for integrated environmental assessment of the U.S. Mid-Atlantic region. *Journal of Environmental Management* 31(6):822-835.
14. Giambelluca, T.W., Ziegler, A.D., A.D., Nullet, M.A., Truong, D.M., and **Tran, L.T**. (2003) Transpiration in a small tropical forest patch. *Agricultural and Forest Meteorology* 117:1-22.
15. **Tran, L. T**.; Knight, C. G.; O'Neill, R. V.; Smith, E. R. (2004) Integrated Environmental Assessment of the Mid-Atlantic Region with Analytical Network Process. *Environmental Monitoring and Assessment* 94 (1/3):263-277.
16. Ziegler, A.D., Giambelluca, T.W., **Tran, L.T**., Vana, T.T., Nullet, JM.A., Fox, J., Tran, V.D., Pinthong, J., Maxwell, J.F., and Evett, S. (2004). Hydrological consequences of landscape fragmentation in mountainous northern Vietnam: evidence of accelerated overland flow generation; *Journal of Hydrology*, Volume 287, Issues 1-4, Pages 124-146.

* Senior author is not assigned.

17. Locantore, N. W.; **Tran, L. T.**, O'Neill, R. V.; McKinnis, P. W.; Smith, E. R.; O'Connell, M. (2004). An Overview of Data Integration Methods for Regional Assessment, *Environmental Monitoring and Assessment* 94 (1/3):249-261.

18. **Tran, L.T.**, Jarnagin, S.T., Wickham, J.D., and Knight, C.G. (2005). Mapping thematic accuracy with fuzzy sets. *Photogrammetric Engineering and Remote Sensing, vol. 71 (1), pp. 29-36.*

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20. **Tran, L.T.**, O'Neill, R.V., Smith, E.R. (2006). A generalized distance measure for environmental integrated assessment. *Landscape Ecology* 21:469–476.

21. Smith, E.R., McKinnis, P., **Tran, L.T.**, O'Neill, R.V. (2006). The Effects of uncertainty on estimating the relative environmental quality of watersheds across a region. *Landscape Ecology* 21:225–231.

22. **Tran, L.T.**, O'Neill, R.V., Smith, E.R.,and Knight, C.G. (2007). Sensitivity analysis of aggregated environmental indices with a case-study of the Mid-Atlantic region. *Environmental Management* 39:506-514.

23. Saaty, T.L. and **Tran, L.T.** (2007). On the invalidity of fuzzifying numerical judgments in the Analytic Hierarchy Process. *Mathematical and Computer Modelling*, 46(7-8): 962-975.

24. Ziegler, A.D., Giambelluca, T.W., Plondke, D., Leisz, S., **Tran, L.T.**, Fox, J., Nullet,M.A., Vogler, J.B., Dao, T.M., and Tran, V.D. (2007). Hydrological consequences of landscape fragmentation in mountainous northern Vietnam: Buffering of Hortonian overland flow. *Journal of Hydrology*, Volume 337, Issues 1-2, Pages 52-67.

25. **Tran, L.T.**, O'Neill, R.V., Smith, E.R., Wagner, P.F., and Mehaffey, M. (2008). Watershed-Based Self- and Peer-Appraisal Indices for Integrated Environmental Assessment with a Case Study of the Mid-Atlantic Region. *Ecological Indicators*, 8(3): 308-315.

26. **Tran, L.T.**, O'Neill, R.V., Smith, E.R. (2009). Determine the most influencing stressors and the most susceptible resources for environmental integrated assessment. *Ecological Modelling*, 220(18):2335-2340.

27. **Tran, L.T.**, O'Neill, R.V., Smith, E.R. (2009). Environmental Integrated Assessment via Monte Carlo simulation with a Case Study of the Mid-Atlantic Region, USA. *Environmental Management*, 44(2): 387-393.

28. Saaty, T.L. and **Tran, L.T.** (2010). Fuzzy Judgments and Fuzzy Sets. *International Journal of Strategic Decision Sciences*, 1(1): 23-40.

29. **Tran, L.T.,** O'Neill, R.V., Smith, E.R. (2010). Spatial pattern of environmental vulnerability in the Mid-Atlantic region, USA. *Applied Geography*, 30(2):191-202.

30. **Tran, L.T.**, O'Neill, R.V., Smith, E.R. (2012). A watershed-based method for environmental vulnerability assessment with a case study of the Mid-Atlantic Region. *Environmental Impact Assessment Review*, 34: 58-64.

31. **Tran, L.T.**, O'Neill, R.V., Smith, E.R., Bruins, R., and Harden, C. (2013). Application of Hierarchy Theory to Cross-Scale Hydrologic Modeling of Nutrient Loads. *Water Resources Management*, 27(5): 1601-1617.
32. **Tran, L.T.**, O'Neill, R.V. (2013). Detecting the effects of land use/land cover on mean annual streamflow in the Upper Mississippi River Basin, USA. *Journal of Hydrology*, 499(30): 82–90.
33. Luffman, I. and **Tran, L.T.** (2014). Risk factors for E. coli O157 and cryptosporidiosis infection in individuals in karst valleys of East Tennessee, USA. *Geosciences*, 4(3): 202-218.
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37. McManamay RA, Nair SS, DeRolph CR, Ruddell BL, Morton AM, Stewart RN, Troi MJ, **Tran L**, Kim H, Bhaduri BL (2017). US cities can manage national hydrology and biodiversity using local infrastructure policy. *Proceedings of the National Academy of Sciences*. (received the Ecological Society of America's 2020 Sustainability Science Award)
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39. Liang, W, **Tran, L,** Washington-Allen, R, et al. (2018). Predicting the potential invasion of kudzu bug, Megacopta cribraria (Heteroptera: Plataspidae), in North and South America and determining its climatic preference. *Biological Invasions* https://doi.org/10.1007/s10530-018-1743-y. Vol.20 (10), p.2899-2913
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41. **Tran, L,** McManamay R, Kim H (2018). A non-parametric distance-based method using all available indicators for integrated environmental assessment – a case study of the Mid-Atlantic Region, USA. *Journal of Environmental Planning and Management*, 1-13 01 Apr 2018. DOI: 10.1080/09640568.2018.1441812
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44. Liang, W., **Tran, L**., Wiggins, G. J., Grant, J. F., Stewart, S. D., & Washington-Allen, R. (2019). Determining Spread Rate of Kudzu Bug (Hemiptera: Plataspidae) and Its Associations With Environmental Factors in a Heterogeneous Landscape. *Environmental Entomology*, 48(2), 309-317. doi:10.1093/ee/nvz014

45. Gathongo, N., & T**ran, L**. (2019). Assessing Social vulnerability of Villages in Mt. Kasigau Area, Kenya, Using the Analytical Hierarchy Process. *GeoJournal*. https://doi.org/10.1007/s10708-019-10004-6.

46. Tran, P., Tran, L., **Tran, L.** (2019). Impact of rurality on diabetes screening in the US. *BMC public health*, Vol.19(1), pp.1190-1199. doi: 10.1186/s12889-019-7491-9

47. Peel, S. E., Burr, D. M., & **Tran, L.** (2019). Formation of Central Pits in Impact Craters on Mars: A Statistical Investigation of Proposed Mechanisms. *Journal of Geophysical Research-Planets*, 124(2), 437-453. doi:10.1029/2018JE005738

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52. **Tran, L**., Barzyk, T., Ridgley, M., & O'Neill, R. (2020). Prioritizing community environmental concerns with a hybrid approach to multi-criteria decision-making – a case study of Newport News, Virginia, USA. *Journal of Environmental Planning and Management*, 63:14, 2501-2517, DOI: 10.1080/09640568.2020.1731439

53. Tran, P., Tran, L., **Tran, L.** (2020). Smoking levels and associations between sociodemographic factors and smoking continuation in U.S. stroke survivors. *Annals of Epidemiology*, Vol.43, pp.66-70. DOI: 10.1016/j.annepidem.2020.01.007

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69. Nisengwe, J. F. R., Willcox, A., & **Tran, L.** (2021). Perceptions of Natural Resources Use in Rwanda - A Partial Proportional Odds Model. *East African Journal of Environment and Natural Resources*, 3(1).

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71. Zhu, Qi; **Tran, Liem T**; Wang, Yan; Qi, Lin; Zhou, Wangming; Zhou, Li; Yu, Dapao; Dai, Limin (2022). A framework of freshwater services flow model into assessment on water security and quantification of transboundary flow: A case study in northeast China. *Journal of environmental management*, Vol.304, p.114318-114318

72. Tran, P., Tran, L., Zhu, C., & **Tran, L.** (2023). US insufficient sleep trends between 2011-2020 by Visual impairment/Blindness status using cross-sectional Behavioral Risk Factor Surveillance System survey data. The Journal of Visual Impairment & Blindness. [In press]

Book chapters

Tran, L.T., Nearing, M., Duckstein, L., Ridgley, M. and Sutherland, R. (2002). Using fuzzy logic-based modeling to improve the performance of the Revised Universal Soil Loss Equation. In: D.E. Stott, R.H. Mohtar, and G.C. Steinhardt (eds), Sustaining the Global Farm – Selected papers from the 10th International Soil Conservation Organization Meeting, May 24-29, 1999, West Lafayette, IN. International Soil Conservation Organization in cooperation with the USDA and Purdue University, West Lafayette, IN. CD-ROM available from the USDA-ARS National Soil Erosion Laboratory, West Lafayette, IN. Web site http://topsoil.nserl.purdue.edu/nserlweb/isco99/pdf/isco99pdf.htm (verified 2 May 2002), pp. 919-923.

Tran, L.T., Jarnagin, S.T., Knight, C.G., and Baskaran, L. (2004). Mapping spatial accuracy and estimating ecological indicators from thematic land cover maps using fuzzy set theory. In Lunetta, R.S., and J.G. Lyon (Editors), *Remote Sensing and GIS—Accuracy Assessment*. CRC Press, Boca Raton, FL.

Tran, L.T., and Knight, C.G. (2004). The Balkan and European context of the drought. In Knight, C.G., Raev, I., and Staneva, M.P. (Eds.), *Bulgarian Drought: A Contemporary Analog for Climate Change*.

Thomas L. Saaty and **Tran, L.T.** (2012). Fuzzy Judgments and Fuzzy Sets; in Tavana, M. (Ed.), *Decision Making Theories and Practices from Analysis to Strategy*. IGI Global.

Peer-Reviewed Technical Report

Smith, E.R., **Tran, L. T.;** and O'Neill, R. V. (2003). *Regional Vulnerability Assessment for the Mid-Atlantic Region: Evaluation of Integration Methods and Assessment Results*. The U.S. Environmental Protection Agency, Technical Report: EPA/600/R-03/082, October 2003.

Paul F. Wagner, O'Neill, R.V., **Tran, L.T.**, Mehaffey, M., Wade, T., and Smith, E.R. (2006). *Regional Vulnerability Assessment for the Mid-Atlantic Region: Forecasts to 2020 and Changes in Relative Condition and Vulnerability*. The U.S. Environmental Protection Agency, Technical Report: EPA/600/R-06/088, September 2006.

Papers published in Proceedings

Sutherland, R., Ziegler, A. D. and **Tran, L.** (1997). Rolled erosion control systems and their effect on sediment redistribution by rainsplash - A laboratory investigation. *Proceedings*

of the Conference 28 of the International Erosion Control Association, Feb 25-28, 1997, Nashville, Tennessee, pp. 428-443.

Schwartz, J. S., Blanton, B., Hathaway, J. M., & **Tran, L.** (2018). Effect of Urbanization on Base Flow Hydrology among Watersheds in Eastern United States.

Reports

Tran, L. T., Cyr, H. J., Horn, S. P., & McKay, L. (2017). Phase I Paleoflood Investigations on the Upper Tennessee River. Final report submitted to the Electric Power Research Institute.

Cyr, H., Horn, S., Tran, L., & McKay, L. (2017). Phase I Paleoflood Field Investigations on the Upper Tennessee River: Field Work to Support the Desk-Top Survey. Report submitted to the Electric Power Research Institute.

Tran, L., Horn, S., McKay, L., & Cyr, H. J. (2017). Phase I Paleoflood Desktop Survey on the Upper Tennessee River. Report submitted to the Electric Power Research Institute.

Posters

Manka, B., Schwartz, J. S., & **Tran, L.** (2017). Evaluating water supply conflicts between urban and agricultural uses. Poster session presented at the meeting of ASCE/ EWRI World Water & Environmental Resources Congress; Sacramento, California.

Fritz, B., **Tran, L**., Horn, S., & McKay, L. (2017). Detecting Sinkholes with Potential for the Deposit of Paleoflood Sediments in the Upper Mississippi River Basin. Poster session presented at the meeting of Annual meeting of the Southeastern Division of the Association of American Geographers, 19-20 November 2017, Starkville, Mississippi.

Invited talks/lectures/seminars

Tran, L.T. (2013). Hierarchy Theory as a Bridge between Epidemiological studies & space-time GIS. An invited talk at the Geography Department's colloquium, University of Kentucky, October 11, 2013.

Tran, L.T. (2013). Regional integrated environmental assessment in the U.S.: progress and challenges. An invited paper presented at the 2013 China-US Annual conference: Environmental Health and Green Development. November 18-19, 2013. Gatlinburg, TN, USA.

Tran, L.T. (2014). Regional integrated environmental assessment for sustainable development. An invited seminar presented at Vietnam National University-HCMC, Vietnam, Thursday, June 5, 2014.

Tran, L.T. (2014). Determine the most influencing stressors and the most susceptible resources for regional integrated environmental assessment. A keynote address at the 2014 China-US Joint Annual Symposium on Water, Energy, and Ecosystem Sustainable Development, October 26-28, 2014, Hefei, Anhui, China.

Tran, L.T. (2014). An overview of methods for regional integrated environmental assessment. Invited seminar, China Ecological Forum, a Comprehensive Academic Forum on Ecology in China, Chinese Academy of Sciences, Beijing, China, October 31, 2014.

Tran, L.T. (2015). Connecting Science, Decision Making, and Community – An EPA Outsider's View and Experience. A seminar given to EPA lab/branch managers and scientists. Research Triangle Park, NC. November 9, 2015.

Tran, L. (2016). Isn't General Systems Theory Outdated? A Geographer's Personal Experience (from Collaborative Research with EPA). A seminar given to EPA lab/branch managers and scientists. Research Triangle Park, NC. September 6, 2016.

Tran, L. (2016). Geospatial Revolution: Mapping Power to the People. A seminar given to the UTK Honors Program. September 15, 2016.

Tran, L.T. (2017). The Use of Various Integrated Assessment Methods in EnviroAtlas. An invited talk given to the EPA EnviroAtlas project's scientists and staff. Research Triangle Park, NC. June 21, 2017.

Tran, L.T. (2017). Is Analytical Network Process Applicable to the EPA's PORTS project? An invited talk given to the EPA PORTS project's scientists and staff. Research Triangle Park, NC. June 22, 2017.

Tran, L. (2018). How to be Ready in an Era of Interdisciplinary Research and Big Data?. School of Engineering, Vanderbilt University. Invited by the School of Engineering, Vanderbilt University. 23 Mar 2018

Tran, L. (2018). Mapping Ecosystem Services for Everyone - Connecting People, Nature, Health, and the Economy. UTK MicNite Spring 2018. 08 Mar 2018

Tran, L. (2018). Connecting Science, Decision Making, & Community An 18-years collaboration. Tennessee Water Resources Research Center. Invited by Tennessee Water Resources Research Center. 06 Mar 2018

Presentations at technical and professional meetings

El-Kadi, A.I., Yabusaki, K., **Tran, L.T**., and Ling, G.G. (1996). Nitrate contamination in Central Oahu's groundwater. A paper presented at the Water Resources Research Center Conference, June 12-14, 1996, Honolulu, Hawaii.

Ridgley, M.A., and **Tran, L.T.** (1996). Multiobjective optimization for community-state coordination of urban water, sanitation, and pollution control. A communication presented at the Second International Conference in Multiobjective Programming and Goal Programming (MOPGP'96), May 15-18, 1996, Torremolinos, Spain.

Tran, L.T. (1996). Fuzzy goal programming and fuzzy composite programming with application to land-use management and water reallocation: a case of Central Oahu, Hawaii. A paper presented at The 5th Conference of EWC Participants, February 1996, Honolulu, Hawaii.

Sutherland, R., Ziegler, A. D., and **Tran, L**. (1997). Rolled erosion control systems and their effect on sediment redistribution by rainsplash - A laboratory investigation. A paper presented at the Conference 28 of the International Erosion Control Association, Feb 25-28, 1997, Nashville, Tennessee.

Tran, L.T., and Duckstein, L. (1998). Application of multi-objective fuzzy regression to erosion prediction. A poster presented at the 1998 Fall Meeting of the American Geophysical Union, December 6-10, 1998, San Francisco, California.

Tran, L.T., and Leung, P.S. (1998). Predicting shrimp disease occurrence: artificial neural networks vs. logistic regression. A paper presented at Aquaculture 98 Conference, February 15-19, 1998, Las Vegas, Nevada.

Tran, L.T., Leung, P.S., and Fast, A. (1998). Identifying factors affecting disease occurrence on Asian shrimp farms using logistic regression model. A paper presented at the Fifth Asian Fisheries Forum, November 11-14, 1998, Chiangmai, Thailand.

Tran, L.T., Lewis, N., Hamnett, M., and Prasad, U. (1999). The relationship between climate variability due to El Nino Southern Oscillation and dengue fever incidence: a case study in French Polynesia using fuzzy regression. A paper presented at the 95th Association of American Geographers Annual Meeting, March 23-27, 1999, Honolulu, Hawaii.

Tran, L.T., Nearing, M., Duckstein, L., Ridgley, M. and Sutherland, R. (1999). Using fuzzy logic-based modeling to improve the performance of the Revised Universal Soil Loss Equation. A paper presented at the 10th International Soil Conservation Organization Conference, May 23-28, 1999, West Lafayette, Indiana.

Tran, L.T., and Duckstein, L. (2000). Fuzzy piecewise linear regression with application to soil erosion prediction. A poster presented at the 96th Association of American Geographers Annual Meeting, April 4-8, 2000, Pittsburgh, Pennsylvania.

Tran, L.T., and Knight, C.G. (2000). Applying fuzzy decision analysis for integrated environmental vulnerability assessment, a case study of the Mid-Atlantic region. A poster presented at the EPA's ReVA workshop at Research Triangle Park, North Carolina. Sep. 12-14, 2000.

Tran, L.T., Knight, C.G., O'Neill, R.V., Smith, E.R., Riitters, K.H., and Wickham, J. (2001). Fuzzy decision analysis for integrated vulnerable assessment of the Mid-Atlantic region. A paper presented at the AAG 2001 meeting at New York, NY. Feb 27-Mar 3, 2001.

Tran, L.T., Knight, C.G., O'Neill, R.V., Smith, E.R., Riitters, K.H., and Wickham, J. (2001). Fuzzy decision analysis for integrated vulnerable assessment. A paper presented at the 16th Annual Symposium of the International Association of Landscape Ecology – U.S. Chapter at Tempe, Arizona, April 25-29, 2001.

Tran, L.T., Knight, C.G., O'Neill, R.V., and Smith, E.R. (2001). Self-organizing maps for integrated environmental assessment of the U.S. mid-Atlantic region. A poster presented at the EPA's ReVA workshop at Research Triangle Park, North Carolina. Oct. 29-30, 2001.

Tran, L.T., Jarnagin, S.T., Wickham, J., and Baskaran, L. (2001). Mapping spatial accuracy and estimating ecological indicators from thematic land cover maps using fuzzy set theory: some initial results. A poster presented at the EPA's ReVA workshop at Research Triangle Park, North Carolina. Oct. 29-30, 2001.

Tran, L.T., Wickham, J.D., Jarnagin, S.T., Knight, C.G., and Baskaran, L. (2001). Mapping spatial accuracy and estimating ecological indicators from thematic land cover maps using fuzzy set theory. A paper presented at the Remote Sensing and GIS Accuracy Assessment Symposium, Las Vegas, Nevada, December 11-13, 2001.

Tran, L.T., Knight, C.G., O'Neill, R.V., and Smith, E.R. (2002). Two-level self-organizing maps for integrated environmental assessment of the U.S. mid-Atlantic region. A paper presented at the AAG 2002 meeting at Los Angeles, CA. Mar 19-23, 2002.

Tran, L.T. (2003). A conceptual framework on data for land-use/land-cover change research at local and small scales. A paper presented at the 99th AAG 2003 meeting at New Orleans, LA. Mar 5-8, 2002.

Tran, L.T., Knight, C.G., O'Neill, R.V., and Smith, E.R. (2003). A Fuzzy Decision Analysis Method for Regional Environmental Assessment of the Mid-Atlantic Region. A poster presented at the ReVA-MAIA 2003 Conference "Using Science to Assess Environmental Vulnerabilities" at King of Prussia, PA. May 19-23, 2003.

Tran, L.T., Knight, C.G., O'Neill, R.V., and Smith, E.R. (2003). An Integrated Framework for Uncertainty Analysis in Regional Environmental Assessment. A poster presented at the ReVA-MAIA 2003 Conference "Using Science to Assess Environmental Vulnerabilities" at King of Prussia, PA. May 19-23, 2003.

Tran, L.T. and O'Neill, R.V. (2007). Watershed-Based Self- and Peer-Appraisal Indices for Integrated Environmental Assessment with a Case Study of the Mid-Atlantic Region. A paper presented at the 99th AAG 2007 meeting in San Francisco, CA. Apr 17-21, 2007.

Tran, L.T. (2007). Using Multi-Criteria Decision Analysis to Support Environmental Decision Making. A paper presented at the workshop on ORD's Ecological Research Program and Proposed Biofuels Study ("Future Midwestern Landscapes" Study); Chicago, IL; May 8-10, 2007.

Tran, L.T. and O'Neill, R.V. (2008). Regional Environmental Vulnerability Assessment with Fuzzy Sets and Multi-Objective Optimization – A Case Study of the Mid-Atlantic Region, U.S.A. A paper presented at the 100th AAG 2008 meeting in Boston, MA, Apr 14-19, 2008.

Tran, L.T., O'Neill, R.V., and Smith, E.R. (2009). A watershed-based method for environmental vulnerability assessment with a case study of the Mid-Atlantic region. A paper presented at the 100th AAG 2009 meeting in Las Vegas, NV, Mar 22-27, 2009.

Tran, L.T. (2010). Design a Multiple-Ecosystem Services Landscape for the Midwest, USA, with Compromise Programming. A paper presented at the 100th AAG 2010 meeting in Washington, DC, April 14-18, 2010.

Tran, L.T. (2010). Regional-scale hydrologic modeling for ecosystem services assessment: considerations, progress, and lessons. A paper presented at the EPA ORD ESRP Third Annual Science Conference, Green Valley Ranch, NV; October 19-21, 2010

Streufert, J., **L. Tran**, E.V. Smith, R. Bruins (2010). E-DASH – Environmental Decision Analysis & Support Heuristics – A Spatial Multi-Criteria/Multi-Objective Environmental Decision Tool for Regional Ecosystem Services Assessment. A poster presented at the EPA ORD ESRP Third Annual Science Conference, Green Valley Ranch, NV; October 19-21, 2010

Tran, L.T., O'Neill, R.V., and Smith, E.R. (2012). RHyME2 – a Regional Hydrologic Modeling for Environmental Evaluation. A paper presented at the AAG 2012 AAG Annual Meeting, New York, NY, February 24-28, 2012.

Tran, L.T. (2012). Effect of land use on mean annual streamflow at regional scale. A paper presented at the 2012 UT Watershed Symposium, September 18, 2012

Tran, L.T., O'Neill, R.V., Nasrin Alamdari, and Vi Tran (2012). Gone with the.... Water: Mississippi River Hydrologic Modeling with a Geographic Approach. A paper presented at the UTK Geography Colloquium Series, November 8th, 2012

Tran, L.T. (2012). RHyME2 – Hydrologic Modeling with a Geographic Approach. A paper presented at the Florida Atlantic University, November 9th, 2012 (invited)

Tran, L.T. (2012). Detecting the Effects of Land Use/Land Cover on Mean Annual Streamflow in the Upper Mississippi River Basin, USA. A paper presented at the 67th SEDAAG Meeting, Asheville, North Carolina, November 18-20, 2012

Baskaran, L., Dale, V., **Tran, L.T.** (2013). Cross-Scale Analysis of Factors Affecting Aquatic Macroinvertebrate Distribution in Tennessee. A paper presented at the AAG 2013 AAG Annual Meeting, Los Angeles, CA, April 9-13, 2013.

Tran, L.T., O'Neill, R.V. (2013). Hierarchy Theory & Cross-Scale Hydrologic Modeling. A paper presented at the AAG 2013 AAG Annual Meeting, Los Angeles, CA, April 9-13, 2013.

O'Neill, R.V., **Tran, L.T.** (2013). Cross-Scale Hydrologic Modeling for Annual NUTRIENT Load. A paper presented at the AAG 2013 AAG Annual Meeting, Los Angeles, CA, April 9-13, 2013.

Tran, V., **Tran, L.T.** (2013). Geospatial Regression Models for Regional and Sub-Regional Mean Annual Stream flow. A paper presented at the AAG 2013 AAG Annual Meeting, Los Angeles, CA, April 9-13, 2013.

Tran, L.T., O'Neill, R.V. (2013). Hierarchy Theory as a Bridge between Epidemiological studies and Space-Time GIS Analyses. A paper presented at the XV International Symposium in Medical/Health Geography, East Lansing, MI, July 7-12, 2013.

Tran, L.T. (2014). Detecting the Effects of Land Use/Land Cover on Mean Annual Streamflow in the Tennessee River Basin. A paper presented at the 2014 UT Watershed Symposium, February 18, 2014.

Tran, L.T., O'Neill, R.V. (2014). Applying Hierarchy Theory to Epidemiological Studies via Multilevel Modeling. A paper presented at the 2014 AAG Annual Meeting, April 8-12, 2014, Tampa, Florida.

Tran, L.T. (2014). Determine the Most Influencing Stressors and the Most Susceptible Resources for Regional Integrated Assessment. A keynote address at the 2014 China-US Joint Annual Symposium – Water, Energy, and Ecosystem Sustainable Development. October 26-28, 2014. Hefei, China.

Tran, L.T. (2014). Analyzing Potential Impact of Data Uncertainties on Regional Relative Environmental Vulnerability. A paper presented at the 2014 SEDAAG Annual Meeting, November 23-25, 2014, Athens, GA.

Gathongo, N, **Tran, L.,** (2014). Analysis of Change in Population and Land Use Land Cover Changes in Taita Taveta, Kenya. A paper presented at the 2014 SEDAAG Annual Meeting, November 23-25, 2014, Athens, GA.

Beddingfield C. B. Burr D. M., **Tran L. T.** (2015). Testing for Non-Visible Fractures on Dione by Identifying Polygonal Impact Craters. A poster presentation at the 46th Lunar and Planetary Science Conference, March 16-20, 2015; The Woodlands, TX.

Tran, L.T. (2015). Determine the Relative Contribution of Interrelated Variables in a Spatial Hierarchical Network. A paper presented at the 2015 AAG Annual Meeting, April 21-27, 2015, Chicago, IL.

Gathongo, N, **Tran, L.,** (2015). Assessing Vulnerability of Jora and Makwasinyi Villages at Mt. Kasigau, Kenya using an Impact Tree Diagram. A paper presented at the 2015 AAG Annual Meeting, April 21-27, 2015, Chicago, IL.

Tran, L.T. (2015). An Interactive Method to Select Indicators for Urban Sustainability Assessment. A paper presented at the 2015 SEDAAG Annual Meeting, November 22-24, 2015, Pensacola, Florida.

Tran, L.T. (2016). Balancing Indicators for Sustainability Assessment. A paper presented at the University of Tennessee Geography Research Symposium (GeoSym) 2016, February 5-6, 2016.

Tran, L.T., Chen, J., Shaw, S-H., (2016). How cab drivers in Wuhan, China, make routing decision—Determine the Relative Importance of Interrelated Variables in a Large Spatial Dataset. A paper presented at the 2016 AAG Annual Meeting, March 29-April 2, 2016, San Francisco, CA.

Gathongo, N, **Tran, L.,** (2016). A Geospatial Approach for Assessing Vulnerability of Human and Natural Systems at Mt. Kasigau, Kenya. A paper presented at the 2016 AAG Annual Meeting, March 29-April 2, 2016, San Francisco, CA.

Nepal, S, **Tran, L.T.** (2016). Catchment-based optimization for land use for bioenergy crops under uncertainty for sustainable development. A paper presented at the 2016 AAG Annual Meeting, March 29-April 2, 2016, San Francisco, CA.

Tran, L., McKay, L, Horn, S., and Cyr, H (2016). A multi-level landscape/landform classification to identify possible sites for paleoflood deposit investigation. A paper presented at the Fifth International Paleoflood Conference Rapid City, South Dakota, USA September 12-15, 2016.

Gathongo, N, **Tran, L.,** (2016). Patterns of Land Cover Changes at Mt. Kasigau. A paper presented at the 2016 SEDAAG Annual Meeting, November 20-22, 2016, Columbia, SC.

Golder K. B., Burr D. M., **Tran L. T.** (2017). Constraining the Controlling Parameter(s) for the Emplacement of Long Lava Flows on Mars: A Quantitative Modeling Approach. A poster presentation at the 48th Lunar and Planetary Science Conference, March 20-24, 2017; The Woodlands, TX.

Tran, L.T. (2017). Making sense of big data across scales with hierarchy theory Scaling up variability in population & socioeconomic data from the Census. A paper presented at the 2017 AAG Annual Meeting, April 5-9, 2017, Boston, MA.

Gathongo, N, **Tran, L.,** (2017). Examining the vulnerability of the natural systems using the landscape metrics and vegetation Indices. A paper presented at the 2017 AAG Annual Meeting, April 5-9, 2017, Boston, MA.

Nepal, S, **Tran, L.T.** (2017). Optimal allocation of land for bioenergy crops under market and production uncertainties. A paper presented at the 2017 AAG Annual Meeting, April 5-9, 2017, Boston, MA.

Tran, L. T., McKay, L., Horn, S., & Cyr, H. (2016, September 12). A multi-level landscape/landform classification to identify possible sites for paleoflood deposit investigation. In Fifth International Paleoflood Conference. Rapid City, South Dakota, USA.

Golder, K., Burr, D. M., & **Tran, L. T**. (2017, March 20). Constraining the Controlling Parameter(s) for the Emplacement of Long Lava Flows on Mars: A Quantitative Modeling Approach. In 48th Lunar and Planetary Science Conference. The Woodlands, TX.

Horn, S., Cyr, H., Boehm, M., Perilla-Castillo, P., McKay, L., & **Tran, L.** (2018, April 10). Stratigraphic Evidence of Late Holocene Flooding Along the Tennessee River. In Annual meeting of the American Association of Geographers. New Orleans, Louisiana.

Fritz, B., **Tran, L.,** Horn, S., & McKay, L. (2018, April 10). Detecting Sinkholes with Potential for the Deposit of Paleoflood Sediments in the Upper Tennessee River Basin. In Annual meeting of the American Association of Geographers. New Orleans, Louisiana.

McKay, L., Cyr, H., **Tran, L.,** & Horn, S. (2017, October 22). Sedimentary Signature of Holocene Flood Deposits in Upper Reaches of the Tennessee River. In Annual meeting of the Geological Society of America. Seattle, Washington.

Tran, L., Horn, S., McKay, L., & Cyr, H. (2017, November 19). A Paleoflood Desktop Survey On The Upper Tennessee River. In Annual meeting of the Southeastern Division of the Association of American Geographers. Starkville, Mississippi.

Tran, L. (2018, April 10). Determine a suitable spatial extent for integrated ecosystem services assessment across the conterminous US with wavelet variance analysis. In AAG 2018 Annual Meeting. New Orleans, LA.

Ferdouz, C., **Tran, L**., Jackson, L., Mehaffey, M., Neale, A., & Smith, B. (2018, April 10). Creating Ecosystem Services Indices with EnviroAtlas Metrics. In AAG 2018 Annual Meeting. New Orleans, LA.

Nepal, S., **Tran, L.,** Hodges, D. G., & van Riemsdijk, M. (2018, April 10). Landowners' perceptions on bioenergy and their willingness to grow bioenergy crops – A case-study in northern Kentucky, USA. In Annual meeting of the American Association of Geographers. New Orleans, Louisiana.

Gathongo, N., & **Tran, L.** (2018, April 10). Assessing the Vulnerability of the Natural System at Mt. Kasigau, Kenya Utilizing AHP Methodology. In Annual meeting of the American Association of Geographers. New Orleans, Louisiana.

Reed, E., & **Tran, L.** (2018, February 15). Risk of Contamination from Oil and Gas Drilling to Groundwater in Tennessee. In UTK GeoSym 2018. UTK.

Tran, L. (2018, February 15). A Non-Parametric Distance-Based Method for Integrated Environmental Assessment. In UTK GeoSym 2018. UTK.

Tran, L., Nagle, N., Wu, Q., & Tran, L. (2019). Measuring Spatial Dependence to Understand the Three Inseparable Issues in Geography—Scale, Spatial Dependence, and Spatial Heterogeneity. In Association of American Geographers (AAG). Denver, CO.

Tran, L. (2019). Big Data and the Old Scale Issues. In AAG 2019 Annual Conference. Washington, DC.

Fritz, B., Tran, L., Horn, S., & McKay, L. (2019). Creating an Enhanced Sinkhole Dataset for the Upper Tennessee River Basin. In Annual meeting of the American Association of Geographers. Washington, D.C..

Tran, L., Nagle, N., Wu, Q., & Tran, L. (2021). The interconnectedness among scale, spatial dependence, and spatial heterogeneity in geographical systems. In AAG 2021. Seatle, WA.

Tran, P., Tran, L., Zhu, C., & Tran, L. (2022). US insufficient sleep trends between 2011-2020 by Visual impairment/Blindness status using cross-sectional Behavioral Risk Factor Surveillance System survey data. A virtual poster presentation at the 28th Annual Rural Health Association of Tennessee Conference. November 16-18, 2022, Pigeon Forge, Tennessee, USA. Winner in the Faculty Category.

Tran, P., Shelton, B., & Tran, L. (2023) Comparisons of short sleep duration among US rural and urban women with prediabetes. A poster presentation at the 2023 Tennessee Public Health Association (TPHA) East Grand Division Meeting. April 6, 2023. Knoxville, Tennessee, USA.

Software / Code

Tran, L. (2018). EPA EnviroAtlas' Integrated Vulnerability Assessment [R codes].

Tran, L. (2018). EPA EnviroAtlas' 3-level Analytical Hierarchical Process model [R codes].

Tran, L. T. (2017). EnviroAtlas' Integrated Community Assessment [Computer Software].

Tran, L. T. (2017). EnviroAtlas' Integrated Ecoregion Assessment [Computer Software].

Tran, L. T. (2017). EPA's Community Cumulative Assessment Tool (CCAT) [Computer Software].

Other products

Tran, L. (2020). Covid 19 transmission rate modeling: posted on Tennessee State Data Center's dashboard at: https://tiny.utk.edu/trackingCOVID19

Tran, L. (2020). TENNESSEE COVID-19 Hospital Resources & Vulnerable Populations in Tennessee. Retrieved from https://storymaps.arcgis.com/stories/408ac270680043a4a85cbb2a546ad510

Tran, L. (2020). TN Overlapping opioid benzo prescriptions 2012-2017 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/44cb83fa43894bba906b3e2e39bac351

Tran, L. (2020). Tennessee Opioid Multiple-Provider Episode (MPE) dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/c8833c350fee4ecd92c18d16ed3e13d4

Tran, L. (2020). TN Overlapping opioid prescriptions 2012-2017 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/4585c9864a394a80b2c9bdcc55a83b46

Tran, L. (2020). TN Drug-Related Morbidity 2012-2017 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/57d13c1d98884022b390a284b3f515a1

Tran, L. (2020). TN Number of Drug Reports 2010-2019 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/21f708b2a6be4992b5cdba3ea30d3aaa

Tran, L. (2020). TN % of opioid-naive patients filling long-acting opioids dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/a3de98c0bbcd4080b2ebdd09df28a272

Tran, L. (2020). TN All Benzodiazepines Prescriptions 2012-2017 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/1de2fe2da64c4250ab744ce415e37020

Tran, L. (2020). TN All Opioids for Treatment Prescriptions 2012-2017 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/2f8ea84b4d174d1e8a033d1f2249dba1

Tran, L. (2020). TN All Opioids for Pain Prescriptions 2012-2017 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/b9109570a7154aff83b92d638d69efe9

Tran, L. (2020). TN Drug-Related Mortality 2012-2017 dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/2415a48a49e14beab8ce80c7f9c9a4b5

Tran, L. (2020). Tennessee Opioid Prescription Morphine Milligram Equivalents (MME) dashboard: https://myutk.maps.arcgis.com/apps/opsdashboard/index.html#/2995b9a9053d499aa9ab79f47ce7d828

f. Scholarships and Awards

1995-1999	East-West Center Graduate Fellowship for the Ph.D. program
1993-1995	Fulbright Graduate Fellowship for the M.A. program
1990	Distinguished Instructor and Researcher, Award of Ministry of Education and Training, Vietnam
1990	Scholarship from 'Bread for the World' for training course on River Water Quality Management, Bangkok, Thailand
1984	Outstanding Graduate, National Award, Vietnam
1980-1984	National scholarship for the B.E. program
2009	The Department’s Teaching Award in Spring 2009
2012	The Department’s Teaching Award in Spring 2012
2014	The Department’s Above and Beyond Award in Spring 2014
2021	UTK College of Arts and Science’s Faculty Academic Outreach Research Award

g. Research Grants and Contracts

On-going

PI. Orchestrating the Efforts to Fight the Opioid Crisis in Tennessee with Geospatial Technologies. Budget $49,972.00 from University of Tennessee System to Geography.

Co-PI. Fine-resolution wetland mapping using high- performance computing and deep learning. Joint Institute for Computational Sciences to Geography

Completed
Primary Investigator for Funded Project beginning April 2018 - USEPA-PORTS System Dynamics Anticipating $49,912.00 from US - EPA - US Environmental Protection Agency to Geography. [A18-1054]

2016-2018: A15-1352. ***Science for the Sustainable and Healthy Communities Research Program (SHCRP) and the EnviroAtlas***. US Environmental Protection Agency. Tran's role: **PI**. Budget: $52,768. Direct cost: $44,654. Fraction of direct costs allocated to candidate: 100%. Project description: serve as senior scientist for the U.S. EPA's EnviroAtlas program, assist young scientists in the EnviroAtlas group to implement various environmental vulnerability assessment methods on online GIS system.

2016-2018: A16-0483-005. ***Paleoflood Study***. Electric Power Research Institute. Tran's role: co-PI (PI: Larry McKay). Budget: $57,426. Direct cost: $24,829. Fraction of direct costs allocated to candidate: 100%. Project description: develop a cross-scale landscape-landform classification and modeling framework for paleoflood siting purpose.

2016-2017: JDRD-LDRD***. Examining the energy water nexus through the lens of the super network combining water routing networks with energy production consumption networks***. UT ORNL Science Alliance. Tran's role: **PI**. Budget: $49,962. Direct cost: $49,962. Fraction of direct costs allocated to candidate: 100%. Project description: to develop a super-network framework integrating hydrologic modeling, geospatial statistics, and network analysis to study the water, electricity, and food nexus.

2016-2017: UT Institute for a Secure and Sustainable Environment (ISSE). Linking neighborhood weather data with remotely-sensed land surface temperature. PI: Jon Hathaway. Budget: $34,000; $5,000 subcontracted to Liem Tran.

Liem T. Tran (U Tennessee), Dan Phuoc Nguyen (PI, HoChiMihn Tech), AD Ziegler (UHM) 2007-2008. Regional Water & Carbon Cycles in the context of Human-Environment Interaction, Mekong Basin, Vietnam. South Asia Regional Committee for START, award no 95/01/CW-005 ($30,000) Lower Mekong Delta, Vietnam.

2006-2010: U013410038. Tennessee Board of Regents & Associates, US Environmental Protection Agency. Technical Support for Regional Vulnerability Assessment. Budget $120,977. PI: **Liem Tran**.

2007-2008: TDEC: "Spatial and Temporal Variations in Water Quality and Their Connection to Land-Cover Change in Little River & Harpeth River Watersheds." Budget: $29,000. PI: **Liem Tran**.

2008-2009: Science Alliance: "Cross-scale interactions and ecological system dynamics: pattern-process relationships through space and time." $61,580. PI: **Liem Tran**.

2010-2011: Tennessee Valley Authority: "Hydrologic and land-use modeling comparative studies of alternative future landscapes and ecosystem services for the U.S. EPA's Future

Landscapes and Ecosystem Services in the Midwestern United States (FML)" – Part 2. Budget: $100,000. PI: **Liem Tran**.

2009-2010: Tennessee Valley Authority: "Hydrologic and land-use modeling comparative studies of alternative future landscapes and ecosystem services for the U.S. EPA's Future Landscapes and Ecosystem Services in the Midwestern United States (FML)." Budget: $41,138. PI: **Liem Tran**.

2007-2010: U.S. EPA's Regional Vulnerability Assessment (ReVA) program; transfer ReVA funding to UT via TN& Associates, Inc. ($67,383 to cover the period from February 2007 to March 2009; more funding from EPA expected to continue the project in 2010). PI: **Liem Tran**.

2011-2012: U.S. USGS & EPA: "Development of Water Quality Model for Regional Loadings." Budget: $114,166. PIs: Carol Harden, Timothy Gangaware, **Liem Tran**.

2012-2013: U.S. USGS & EPA: "Development of Water Quality Model for Regional Loadings." Budget: $114,473. PIs: Carol Harden, Timothy Gangaware, **Liem Tran**.

2013-2014: UTK's ORU. Develop a geodatabase for TVA data. $45,200.

2014-2015: UTK's ORU. Develop a geodatabase for TVA data. $45,500.

Submitted but not funded

Co-PI. Increasing Access to Policy-Read Models: New County-Level Models, Communication and Training Requested $455,281.00 from Council of State and Territorial Epidemiologists (CSTE) for Geography on July 2020

Proposal: Not Funded (Secondary Investigator) - Integration of SWOT Measurements and High-Resolution Remote Sensing Data for Mapping and Modeling Spatiotemporal Dynamics of Small Surface Waters Requested $674,987.00 from NASA - National Aeronautics and Space Administration for Geography on November 2019. [20-1239]

Proposal: Not Funded (Primary Investigator) - CNH2-L: Dynamics of the opioid crisis and socio-economic and environmental disparities under multi-level interactions between the human and environment systems Requested $1,449,395.00 from US - NSF - National Science Foundation for Geography on November 2019. [20-1629]

Proposal: Not Funded (Secondary Investigator) - Mapping Surface Water Dynamics in Tennessee Using High-Resolution Aerial Imagery and LiDAR Data Requested $34,608 from Tennessee Water Resources Research Center (TNWRRC) for Geography on October 2019.

Proposal: Not Funded (Primary Investigator) - Exploring the Interconnectedness of Spatial Dependence and Spatial Heterogeneity with an Integrated Cross-Scale Analysis Framework Requested $377,474.00 from US - NSF - National Science Foundation for Geography on September 2019. [20-0544]

Proposal: Not Funded (Secondary Investigator) - Investigating the Role of Land Surface Characteristics on Tornadogenesis in Landfalling Tropical Cyclones using Climatology and Case Studies Requested $79,995.00 from DOC - NOAA - National Oceanic and Atmospheric for Geography on April 2018. [18-3422]

2007-2008: Problem Solving Using Environmental Assessment Investigations. NSF proposal. Budget: $250,000. PI: Rita Hagevik. Co-PI: **Liem Tran**.

2007-2009: Tallassee Fund: "Develop a GIS database for ecological vulnerability assessment of Tapoco Project's operations." Fund requested: $37,000. PI: **Liem Tran**.

August 2007-July 2009. Proposal: An Integrated Framework for Uncertainty Analysis of Models in Integrated Environmental Assessments. Funding source: EPA; amount: $350,000; PI: **Liem Tran**. Co-PI's: Mary English, Robert O'Neill.

2009-2010: The complexity of regional scale phenomena. NSF proposal. Budget: $1,138,000. PI:Thomas Hallam; co-PI: Stephanie Smullen, **Liem T Tran**.

2009-2013: Physical, Ecological and Socio-cultural Transitions in Bi-national Agro-ecosystems. NSF proposal. Budget: $1,500,000. PI:Thomas Hallam; co-PI: Stephanie Smullen, **Liem T Tran**, Gary F McCracken, John M Peters.

2014: *A trait-based approach to landscape genetics*. National Science Foundation. Tran's role: co-PI. (PI: Richard Strange). Budget: $200,000. Direct cost: $150,000. Project description: to identify significant correlations between many fish functional traits and environmental variables.

2015. *The coupling of Bottom-Up Evapotranspiration Approaches with Remote Sensing Measurements to close the water budget in adjoining urban and agricultural areas in the U.S. Southeast.* US Geological Survey. Tran's role: co-PI. (PI: Jon Hathaway). Budget: $211,233. Direct cost: $211,233. Fraction of direct costs allocated to candidate: 45%. Project description: to provide a fundamental understanding of the role of soil moisture on ET estimates and use this understanding to enhance predictions of ET across scales.

2016. *2016 East Tennessee Geospatial Academy.* Tennessee Higher Education Commission. Tran's role: co-PI. (PI: Kurt Butefish). Budget: $46,553. Direct cost: $43,105. Fraction of direct costs allocated to candidate: 50%. Project description: The University of Tennessee, Colleges of Arts and Sciences and Education, Health and Human Science are partnering with Knox County and Oak Ridge School systems to propose the 2016 East Tennessee Geospatial Academy in response to the THEC ITQ Grant RFP for 2016.

2016. *The Coupling of Bottom-Up and Top-Down Evapotranspiration Approaches with Remote Sensing-Based Scaling to Close the Water Budget in Adjoining Urban and Agricultural Areas*. US Geological Survey. Tran's role: co-PI. (PI: Jon Hathaway). Budget: $476,288. Direct cost: $238,136. Fraction of direct costs allocated to candidate: 25%. Project description: to quantify ET using bottom-up and top-down approaches, and provide a better method for scaling site observations to the larger watershed, in particular for systems with heterogeneous landscapes.

h. Professional Memberships

- American Geophysics Union
- The Association of American Geographers

i. Other professional activities

- Serve on the SEC Academic Symposium Advisory Board 2015-2017, organizing the "Water for Sustainable Ecosystems, Economies, and Communities: An Interactive Symposium."
- Serve on the Advisory Group - Commission for Environmental Cooperation's Capacity Building for Vulnerable Communities Project, 2012-2013. North American Agreement on

Environmental Cooperation (NAAEC)'s Commission for Environmental Cooperation (CEC) includes representatives from Canada, US, and Mexico.

- Serve as a national expert on integrated regional assessment for the U.S. Environmental Protection Agency, 2009-present.
- Coordinator of the fuzzy-geography group, 2008-2010.
- Organized two paper sessions and one panel discussion at the AAG 2008 Meeting in Boston.
- Serve on SEDAAG Honors Committee, 2015-present.
- Organized the Cross-Scale Hydrologic Modeling: Challenges & Progress session at the AAG 2013 Annual Meeting, Los Angeles, CA, April 9-13, 2013.
- Reviewer, Environmental Policy and Governance, July 2018, Comparative analysis of indicator-based urban sustainability assessment frameworks: a systematic literature review
- Reviewer, Land Degradation & Development, April 2018 - August 2018, Review manuscript "Perennial biomass production from marginal land in the Upper Mississippi River Basin."
- Reviewer, Ecological Indicators, August 2017 - September 2017, Title: Regionalization of water environmental carrying capacity for supporting the sustainable water resources management and development in China
- Reviewer, Physical Geography, August 2017, Manuscript's title: Study on urban water security from resiliency perspective based on fuzzy comprehensive evaluation model
- Reviewer, Physical Geography, August 2017, Study on urban water security from resiliency perspective based on fuzzy comprehensive evaluation model
- Reviewer, Ecological Indicators, August 2017 - September 2017, Review manuscript "Regionalization of water environmental carrying capacity for supporting the sustainable water resources management and development in China."
- Manuscript reviewer, Journal of the American Water Resources Association (JAWRA) Biological Conservation (BOC) Catena Computers, Environment and Urban Systems (CEUS) Computers & Geosciences (CAGEO) Ecological Economics (ECOLEC) Ecological Modelling (ECOMOD) European Journal of Operational Research (EJOR) Environmental Modeling and Assessment (EMA) Environmental Management (ENM) Environmental Modeling and Assessment (ENMO) Earth Science Informatics (ESIN) Fuzzy Sets and Systems (FSS) Health Care Management Science (HCMS) Hydrology and Earth System Sciences (HESS) International Journal of Academic Research (IJAR) International Journal of Geographical Information Science (IJGIS) Information Sciences (INS) Journal of Ocean Technology Journal of Environmental Management (JEMA) Computational Statistics & Data Analysis (CSDA) Journal of Hydrology Landscape Ecology (LAND) Libertas Academica Management Research News (MRN) Mathematical and Computer Modelling (MCM) Naturwissenschaften Photogrammetric Engineering & Remote Sensing (PE&RS) Transactions on Engineering Management (TEM) Water Resources Management (WARM), August 2014 - July 2017 (ongoing), Reviewer

- Proposal reviewer, U.S. Army Corps of Engineers' Engineer Research and Development Center (ERDC), August 2014 - July 2017 (ongoing), Grant proposal reviewer
- Served as reviewer for NSF proposals.
- Served as reviewer for three books.
- Wrote a proposal entitled “Regional Water and Carbon Cycles in the context of Human-Environment Interaction in the Lower Mekong Basin, Vietnam,” submitted to The Southeast Asia Regional Committee for START (SARCS). The project was funded $30,000 which went to the HoChiMinh City University of Technology (HCMCUT). Tran was a no-pay scientific advisor for the project.
- Proposal reviewer, NOAA’s RESTORE Science Program, February 2023, Grant proposal reviewer; four proposals

Departmental Service

- Associate Head, 2020-current.
- Develop New Academic Program of the BS in GIS&T, UTK Geography Department, Coordinator, editor, author, April 2020 - August 2021, Develop the New Academic Program Proposal of the BS in GIS&T to submit to THEC (>150 pages).
- Develop Letter of Notification of the BS in GIS&T program, UTK Geography Department, Coordinator, editor, author, August 2019 - July 2020, Develop the Letter of Notification of the BS in GIS&T program to submit to THEC (42 pages)
- Business Manger Search Committee, Department of Geography, Chair, April 2019 - June 2019, Chair of the business manager search committee of the Geography department
- GIS Search Committee, Department of Geography, Member, November 2018 - April 2019, Member of the GIS faculty search committee
- Executive Advisory Committee, , Department of Geography, University of Tennessee, Member, August 2018 - September 2021 (ongoing), A position that assists and advises Department Head on governance issues, including faculty evaluation
- Director of Graduate Studies (2012-2015)
- Serve on Graduate Program Committee (2009-2015)
- Serve on Graduate Admissions Committee (2009-2015)
- Served as webmaster for the department’s website (2008-2012)
- In charge of the department computer labs (2009-2012)
- Serve on the GIS-Transportation Search Committee in 2010-2011.
- Serve on the Department Chair Search Committee in 2011-2012.
- Serve on the Target Opportunity Hire Search Committee in 2011-2012.
- Chair of the search committee of GIS outreach coordinator position, 2016.
- Serve on the GIS faculty search committee, 2016.

- Serve as the department photographer (2013-present).

College Service

- Serve as the Arts & Sciences representative on the Watershed Minor executive committee, 2015-2020.
- Serve on the Haines-Morris Committee, 2016-2020.
- Served on the Graduate Education Working Group (GEWG) to develop policies for various fellowships and to select fellowship awardees. 2013-2016.
- Served on the Search Committee for the College's Data Analyst position 2013.

University Service

- Substance Misuse and Addiction Resource for Tennessee (SMART) Policy Network, 2020-2022. Member of Operation Board. Conduct data analyses, develop dashboards.
- Substance Misuse and Addiction Resource for Tennessee (SMART) Initiative, 2022-on going. Conduct data analyses, develop dashboards.
- Coronavirus-19 Outbreak Response Experts (CORE-19), UTK, Expert on spatial modeling, system dynamics modeling, March 2020 - August 2021, The Coronavirus-19 Outbreak Response Experts (CORE-19) team at the University of Tennessee, Knoxville is a network of researchers in public health, economics, public policy, agriculture, veterinary medicine, and other disciplines who seek to provide timely and evidence-based information for policymakers, industry, and the public on pressing questions regarding the global pandemic. Running a Covid-19 transmission rate model used in the TN Covid-19 dashboard.
- Mid-Cycle Program Review Panel, UTK, Internal reviewer, February 2020 - March 2020, Mid-Cycle Program Review, Department of Political Science, February 20-21, 2020. Conduct interviews, writing report.
- Summit for Opioid Addiction & Response, UT System, GIS & geospatial analyst, January 2020 - August 2020 (ongoing), Provide geospatial expertise to the UT Summit for Opioid Addiction & Response in the fight against the opioid crisis in TN. Helping UT system to develop geodatabase and geospatial applications for various stakeholders (e.g., social workers, judges, the public, K-12 students, etc.) in the fight against the opioid crisis.
- Undergraduate Council, Natural Sciences, Natural Sciences Committee, Committee member, August 2019 - July 2024 (ongoing), Member of Natural Sciences committee, Undergraduate Council
- Serve as UT representative on the SEC Academic Symposium Advisory Board since 2015, organizing the "Water for Sustainable Ecosystems, Economies, and Communities: An Interactive Symposium" in 2007.
- Serve as judge for UTK's EUReCA (Exhibition of Undergraduate Reseach & Crative Achievement) 2011, 2012, 2013, 2014, 2015, 2016.

Curricular Designs and Innovations

New Program, BS in GIS&T, August 2019 - August 2021.

Course Redesign, GEOG 536-Watershed Dynamics, January 2018 - May 2018.

Course Redesign, GEOG 436-Water Resources, January 2016 - May 2016.

Undergraduate Honors Theses (Student Supervision)

Emma Reed, Potential Contamination Risk in Tennessee Aquifers from Oil and Gas Drilling, January 2018 - May 2018.

Student Research (Student Supervision)

Undergraduate, Cody Hudson, Using System Dynamics to Explore the Impact of Drought on Tennessee Water Resources and Agriculture, January 2018 - May 2018.

Undergraduate, Emma Reed, Risk from gas-oil drilling on groundwater in Tennessee, August 2017 - August 2018 (ongoing).

Undergraduate, Danielle Dami, Water-Energy Nexus, May 2016 - March 2017.

Undergraduate, Bridgette Frtiz, UG Knoxville surface temperature & paleoflood, May 2016 - July 2017 (ongoing).

Undergraduate, Christopher Wang, Paleo flood spatial analysis, May 2016 - July 2016.

Institutional Program Reviews

Reviewer, Mississippi State University, Department of Geosciences, August 2018 - September 2018, External Review for Dr. Qingmin Meng’s P&T application

Service to Community

- Using geospatial technology to fight the opioid crisis, Align9, GIS expert, July 2020 - August 2022 (ongoing), Align9 is a non-profit working to align resources across the 9th Judicial District of Tennessee. We proved them GIS training.
- Knoxville Leadership Foundation, Knoxville Leadership Foundation, GIS analyst, February 2020 - March 2020, Helping with GIS projects, creating maps for Knoxville Leadership Foundation's federal grant applications; creating opportunities for students doing internships with NGOs

References

Nicholas N Nagle, PhD
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Application Forms

Source of Applicants

Where did you learn of this opportunity?

CAS internal email