

Eleftheria (Ria) Kontou, Ph.D.

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| CONTACT INFO | Address: 205 N. Mathews Ave, MC 250, Room 1212 Newmark CE Lab, Urbana, IL 61801, USA E-mail: kontou@illinois.edu — Office phone: +1 217-244-3425 Webpage: https://publish.illinois.edu/kontou/home | | |
| ACADEMIC POSITIONS | Assistant Professor | | Oct 2019–Present |
| | Department of Civil and Environmental Engineering University of Illinois at Urbana-Champaign Urbana, IL, USA | | |
| EDUCATION | Department of Civil and Coastal Engineering, University of Florida | | Dec 2016 |
| | Ph.D. in Civil Engineering (Transportation Systems) Dissertation: <i>Socially Optimal Policies for Light-Duty Vehicle Electrification and Operations</i> Advisor: <i>Prof. Yafeng Yin</i> | | |
| | Department of Civil and Environmental Engineering, Virginia Tech | | Dec 2013 |
| | M.Sc. in Civil Engineering (Transportation Systems) Thesis: <i>Commute Travel Changes and their Duration in Hurricane Sandy's Aftermath</i> Advisor: <i>Prof. Pamela Murray-Tuite</i> | | |
| | Department of Civil Engineering, National Technical University of Athens | | Dec 2011 |
| | Diploma in Civil Engineering Thesis: <i>Allocation of Buses to Depots: a Mixed Integer Non-Linear Programming Approach</i> Advisor: <i>Prof. Matthew Karlaftis</i> | | |
| RESEARCH EXPERIENCE | Postdoctoral Researcher | City and Regional Planning University of North Carolina at Chapel Hill Chapel Hill, NC, USA | Aug 2018–Oct 2019 |
| | Postdoctoral Researcher | Transportation Systems Center National Renewable Energy Laboratory Golden, CO, USA | Jan 2017–Aug 2018 |
| | Graduate Assistant | Center for Transportation Analysis Oak Ridge National Laboratory Knoxville, TN, USA | Aug 2015–Aug 2016 |
| | Research Assistant | Civil Engineering University of Florida Gainesville, FL, USA | Jan 2014–Dec 2016 |
| | Research Assistant | Turner-Fairbank Highway Research Center Federal Highway Administration McLean, VA, USA | Aug 2012–Aug 2013 |
| | Research Assistant | Civil Engineering Virginia Tech Falls Church, VA | Jul 2012–Dec 2013 |

PUBLICATIONS

Referred Articles

- **Kontou, E.**, Garikapati, V., and Hou, Y. Reducing ridesourcing empty vehicle travel with future travel demand prediction. *Transportation Research Part C: Emerging Technologies*, Vol. 121, 102826, 2020. [Link](#)

- Greene, D. L., **Kontou, E.**, Borlaug, B., Brooker, A., and Muratori. M. Public charging infrastructure for plug-in electric vehicles: What is it worth? *Transportation Research Part D: Transport and Environment*, Vol. 78, pp. 102182, 2020. [Link](#)
- Muratori, M., **Kontou, E.**, and Eichman, J. Electricity Rates for Electric Vehicle Direct Current Fast Charging in the United States. *Renewable and Sustainable Energy Reviews*, Vol. 113, pp. 109–235, 2019. [Link](#)
- Wenzel, T., Rames, C., **Kontou, E.**, and Henao, A. Travel and Energy Implications of a Ride-sourcing Service in Austin, Texas. *Transportation Research Part D: Transport and Environment*, Vol. 70, pp. 18–34, 2019. [Link](#)
- **Kontou, E.**, Liu, C., Xie, F., Wu, X., and Lin, Z. Understanding the Linkage between Electric Vehicle Charging Network Coverage and Charging Opportunity Using GPS Travel Data. *Transportation Research Part C: Emerging Technologies*, Vol. 98, pp. 1–13, 2019. [Link](#)
- Wood, E., Rames, C., **Kontou, E.**, Motoaki, Y., Smart, J., Zhou, Z. Analysis of Fast Charging Station Network for Electrified Ride-Hailing Services. *SAE Technical Paper 0067*, 2018. [Link](#)
- **Kontou, E.**, Yin, Y., Lin, Z., and He, F. Socially optimal replacement of conventional with electric vehicles for the US household fleet. *International Journal of Sustainable Transportation*, Vol. 11, No. 10, pp. 749–763, 2017. [Link](#)
- **Kontou, E.**, Yin, Y., and Ge, Y. Cost-Effective and Eco-Friendly Plug-in Hybrid Electric Charging Management. *Transportation Research Record: A Journal of the Transportation Research Board*, Vol. 2628, pp. 87–98, 2017. [Link](#)
- **Kontou, E.**, Murray-Tuite, P., and Wernstedt, K. Duration of commute travel changes in the aftermath of Hurricane Sandy using accelerated failure time modeling. *Transportation Research Part A: Policy and Practice*, Vol. 100, pp. 170–181, 2017. [Link](#)
- **Kontou, E.**, Murray-Tuite, P., and Wernstedt, K. Commuter Adaptation in Response to Hurricane Sandy’s Damage. *Natural Hazards Review*, Vol. 18, No. 2, pp. 04016010, 2016. [Link](#)
- **Kontou, E.**, Yin, Y., and Lin, Z. Socially Optimal Electric Driving Range of Plug-In Hybrid Electric Vehicles. *Transportation Research Part D: Transport and Environment*, Vol. 39, pp. 114–125, 2015. [Link](#)
- **Kontou, E.**, Kepaptsoglou, K., Charalampakis, A., and Karlaftis, M. The bus to depot allocation problem revisited: a genetic algorithm. *Public Transport*, Vol. 6, No. 3, pp. 237–255, 2014. [Link](#)
- **Kontou, E.**, and Zhang, W. Isolating Stationary and Temporal Sources of Driver Distraction through Eye-Tracking Study. *Advances in Transportation Studies*, Vol. 1, pp. 87–100, 2014.

Book Chapters

- McDonald, N., **Kontou, E.** and Handy, S. (2021). Children and Cycling. In Pucher J. Buehler R. (Eds.), *Cycling for Sustainable Cities*. Cambridge, Massachusetts; London, England: The MIT Press. ISBN 9780262542029.
- Stephens T.S., Auld, J., Chen, Y., Gonder, J., **Kontou, E.**, et al. Assessing Energy Impacts of Connected and Automated Vehicles at the U.S. National Level: Preliminary Bounds and Proposed Methods. In: Meyer G., Beiker S. (eds) *Road Vehicle Automation 5. Lecture Notes in Mobility*. Springer, Cham, 2019. [Link](#)

Indicative Presentations

- Alternative Fuel Vehicles Evacuation Planning (with Purba D.) At the *INFORMS Annual Meeting*, Virtual, Nov 8-13, 2020.
- Electricity rates for electric vehicle fast charging (with Muratori M. and Eichman. J.). At the *6th Annual Conference on Transportation, Economics, Energy and the Environment (TE3)*, University of Michigan, MI, Oct 18, 2019.

- Analysis of Fast Charging Station Network for Electrified Ride-Hailing Services (with Wood, E., Rames, C., Motoaki, Y., Smart, J. and Zhou, Z.). At the *Society of Automotive Engineers World Congress*, Detroit MI, April 10-12, 2018.
- Incentive Schemes for Maximizing the Benefits from Battery Electric Vehicle Adoption (with Yin, Y.). At the *INFORMS Annual Meeting*, Houston TX, October 22-25, 2017.
- Quantifying Fuel Impacts of Connected and Automated Vehicles Through a Bottom-up Energy Inventory Model and National Traffic Data (with Gonder, J. and Chen, Y.). At the *Autonomous Vehicle Symposium 2017*, San Francisco CA, July 11-17 2017.
- Shared Autonomous Mobility: A Review of Potential Economic Impacts and Energy Savings (with Gonder, J.). At the *14th Annual Colorado Transportation Symposium*, Denver CO, April 7 2017.
- Public Charging Opportunities Frontiers for U.S. Cities (with Lin, Z., Liu, C. and Yin, Y.), At the *96th Annual Meeting of the Transportation Research Board*, Washington DC, January 8-12 2017.
- Socially Optimal Replacement of Conventional Vehicles with Electric Vehicles for the U.S. Household Fleet (with Yin, Y.) At the *Lloyd's Register Foundation International Workshop on Transport and Environment*, Shanghai Maritime University, Shanghai China, August 2-3 2015.

Referred Reports

- **Kontou, E.**, Melaina, M., and Brooker A. Light Duty Vehicle Attribute Projections (Years 2015-2030). California Energy Commission. CEC-200-2018-008 Report, 2018. [Link](#)
- Stephens, T. S., Levinson, R. S., Brooker, A., Liu, C., Lin, Z., Birky, A., and **Kontou, E.** Comparison of Vehicle Choice Models. ANL/ESD-17/19 Report, 2017. [Link](#)

Under Review

- **Kontou, E.** and McDonald, N. Associating Ridesourcing with Road Safety Outcomes: Insights from Austin Texas. Target journal: *PLOS One*
- Guo, S. and **Kontou, E.** Disparities and Equity Issues in Electric Vehicles Incentives Allocation. Target journal: *Energy Policy*

Students names are underlined>.

INVITED LECTURES

- Socioresilient Infrastructure Session, Systems Session Facilitator, **MIT & Station 1 NSF Convergence Accelerator Workshop**, Virtual, Sep 25 2020
- Examining Needs for Infrastructure Development: Commissioner Workshop on Plug-in Electric Vehicle Charging Infrastructure, **California Energy Commission**, Virtual, Aug 6 2020 [Link](#)
- Next Generation Transportation Systems Seminar, **University of Michigan**, Virtual, Mar 26 2020 [Link](#)
- **Sloan Foundation and Boston University Workshop** on Integrating New Electric Mobility Systems with the Electric Grid Infrastructure, MA, Nov 6-7 2019 [Link](#)
- Data for Good Exchange 2019, **Bloomberg's Global Headquarters**, NY, Sep 15 2019 [Link](#)
- 3 Revolutions Future Mobility Research Workshop, **UC Davis**, CA, Oct 23-24 2018
Impacts of travel demand information diffusion on reducing empty vehicle miles traveled by ride-sourcing vehicles
- UNC CleanTech Summit, **UNC Chapel Hill**, NC, Mar 1-2 2018
Smart & Healthy Cities Panel on the Electrification of the Economy

GRANTS

Research

Integrated Modeling and Technoeconomic Assessment of Electric Vehicle Community Charging Hubs **2020–23**
Department of Energy Vehicle Technologies Office, \$280,000 (Total \$350,000)
 PI with Co-PI Yan (Joann) Zhou (Argonne National Laboratory)

Escaping Transport and Fuel Poverty: A Novel Framework for Transportation Energy Vulnerability Analysis **2020–21**
Center for Social and Behavioral Science UIUC, \$19,882
 PI with Julie Cidell (co-PI) and Michael Minn (co-PI) (all UIUC)

Planning for Emerging Mobility: Testing and Deployment in Illinois. **2020–21**
Illinois Department of Transportation, \$25,000 (Total \$650,000)
 Co-PI with PI Imad Al-Qadi (UIUC), Co-PIs Ghassan Chehab, Angeli Jayme, Lewis Lehe, and Yanfeng Ouyang (all UIUC)

Spatial Modeling of Covid-19: Optimizing PDE and Metapopulation Models for Prediction and Spread Mitigation **2020–21**
C3.ai Digital Transformation Institute, \$50,000 (Total \$200,000)
 Co-PI with PI Zoi Rapti (UIUC), Co-PIs Panos Kevrekidis (UMass Amherst), Yannis Kevrekidis (Johns Hopkins)

Teaching

PrairieLearn and Course Redesign for Core CEE Intro Sequence **2020–21**
Strategic Instructional Innovations Program GCOE UIUC, Total \$34,000
 Co-PI with PI Sotiria Koloutsou-Vakakis, Co-PIs Hadi Meidani, Lei Zhao, Christopher Tessum (all CEE UIUC)

TEACHING

- **Instructor CEE 598: Urban Transportation Models Graduate course**, University of Illinois at Urbana-Champaign, Fall 2020
- **Instructor CEE 201: Systems Engineering and Economics BSc course**, University of Illinois at Urbana-Champaign, Spring 2020
- **Co-Instructor (with Leta Huntsinger) PLAN 739: Transportation Planning Models**, MSc course, University of North Carolina at Chapel Hill, Spring 2019
- **Teaching Assistant TTE 5305: Transportation Systems Analysis**, MSc course taught by Yafeng Yin, University of Florida, Fall 2014 Fall 2015

AWARDS

- **iSEE Levenick Teaching Fellowship**, Sustainability Teaching Fellow, UIUC, 2020 [Link](#)
- **Cloud Research Support Engineer Honorarium**, Pervasive Technology Institute, Indiana University, 2019 [Link](#)
- **Scholar**, Collaborative Sciences Center for Road Safety, UNC Chapel-Hill, 2018-19
- **Reviewer Recognition**, TRB Committee on Alternative Transportation Fuels and Technologies, 2017 and 2018
- **Executive Fellow**, International Road Federation (IRF), 2017
- **Future Industry Leader Spotlight Award**, American Road Transportation Builders Association, 2016
- **Precourt Fellowship**, Stanford's Energy Efficiency Center for the 2016 Behavior, Energy and Climate Change Conference (BECC) Travel Grant, 2016
- **Clinton Global Initiative University (CGIU) Travel Grant** for CGIU Conference, 2016
- **Fellow**, University of Florida Transportation Institute (UFTI), 2014-16
- **Gerondelis Foundation Scholar** Gerondelis Foundation, 2014

- **Finalist of the Graduate Collegiate Poster Competition**, Society of Women Engineers, 2014
- **Greek State Scholarships Fellow**, State Scholarship Foundation, 2012-13

SERVICE

National-level

- The **National Academies of Sciences, Engineering, Medicine, Transportation Research Board**, Standing Committee on Alternative Transportation Fuels and Technologies (AMS40), Member, 2017-23
- The **National Academies of Sciences, Engineering, Medicine, Transportation Research Board**, Young Member Coordinating Council, Chair, 2021-23
- **American Society of Civil Engineers (ASCE)** Transportation Development Institute, Connected and Autonomous Vehicles Impacts Committee, Younger Member, 2015-20

Campus

- Illinois Climate Action Plan (iCAP) Transportation SWATeam Member, 2020-21

College

- Grainger College of Engineering Diversity Committee, Member, 2020-21
- Anti-Racism Task Force (lead: Tandy Warnow CS), Member, Jun-Aug 2020

Department

- EWES Program Graduate Admissions Coordinator, 2020-21

ASSOCIATIONS

- **American Society of Civil Engineers (ASCE)**, Associate Member, 2016-Present
- **Women's Transportation Seminar (WTS)**, Member, 2014-Present

REVIEWS

Serving as a reviewer for:

- **Research Proposals**
 - Sloan Foundation Proposal Review 2020
 - National Science Foundation Engineering Review Panel 2020
 - DOE Vehicle Technologies Office, Annual Merit Review, Transportation Analysis Reviewer, 2019 and 2020
 - National Cooperative Highway Research Program, Project Panel: Initiating the Systems Engineering Process for Rural Connected Vehicle Corridors, Final Project Reviewer, 2020
 - Southeastern Transportation Research, Innovation, Development and Education Center Proposal Review 2020
 - UCLA Institute of Transportation Studies Proposal Review 2019
 - Mountain-Plains Consortium University Transportation Center Publication Peer Review 2019
- **Journal Articles**
 - Energy Reports
 - Environmental Research Letters
 - IEEE Transactions on Intelligent Transportation Systems
 - IEEE Intelligent Transportation Systems Magazine
 - IET Intelligent Transport Systems
 - International Journal of Sustainable Transportation
 - International Journal of Transportation Science and Technology

- International Journal of Urban Sustainable Development
- Journal of Cleaner Production
- Sustainability
- Sustainable Cities and Societies
- Transport Policy
- Transportation
- Transportation Research Part A: Policy and Practice
- Transportation Research Part C: Emerging Technologies
- Transportation Research Part D: Transport and Environment
- Transportation Research Record: A Journal of the Transportation Research Board