

# Eleftheria (Ria) Kontou, Ph.D.

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 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: *Socially Optimal Policies for Light-Duty Vehicle Electrification and Operations*  
 Advisor: *Prof. Yafeng Yin*
- Department of Civil and Environmental Engineering, Virginia Tech** **Dec 2013**  
**M.Sc. in Civil Engineering** (Transportation Systems)  
 Thesis: *Commute Travel Changes and their Duration in Hurricane Sandy's Aftermath*  
 Advisor: *Prof. Pamela Murray-Tuite*
- Department of Civil Engineering, National Technical University of Athens** **Dec 2011**  
**Diploma in Civil Engineering**  
 Thesis: *Allocation of Buses to Depots: a Mixed Integer Non-Linear Programming Approach*  
 Advisor: *Prof. Matthew Karlaftis*
- RESEARCH EXPERIENCE** **Postdoctoral Researcher** **Aug 2018–Oct 2019**  
 City and Regional Planning  
**University of North Carolina at Chapel Hill**  
 Chapel Hill, NC, USA
- Postdoctoral Researcher** **Jan 2017–Aug 2018**  
 Transportation Systems Center  
**National Renewable Energy Laboratory**  
 Golden, CO, USA
- PUBLICATIONS**  
**Referred Articles**  
Students names are underlined.
- Purba, D.S.D., **Kontou, E.**, and Vogiatzis, C. Evacuation Route Planning for Alternative Fuel Vehicles. *Transportation Research Part C: Emerging Technologies*, Vol. 143. pp. 103837, 2022. [Link](#)
  - Wu, Y.-C., and **Kontou, E.** Designing electric vehicle incentives to meet emission reduction targets. *Transportation Research Part D: Transport and Environment*, Vol. 107. pp. 103320, 2022. [Link](#)
  - Liu, S., and **Kontou, E.** Quantifying transportation energy vulnerability and its spatial patterns in the United States. *Sustainable Cities and Society*, Vol. 82, pp. 103805, 2022. [Link](#)
  - Guo, S., and **Kontou, E.** Disparities and equity issues in electric vehicles rebate allocation. *Energy Policy*, Vol. 154, 112291, 2021. [Link](#)
  - **Kontou, E.**, and McDonald, N. Associating Ridesourcing with Road Safety Outcomes. *PLOS one*, Vol. 16(3), e0248311, 2021. [Link](#)
  - **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](#)
  - **Kontou, E.**, McDonald, N., Brookshire, K., Pullen-Seufert, N., and LaJeunesse, S. US active school travel in 2017: prevalence and correlates. *Preventive medicine reports*, Vol. 17, 101024, 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](#)
- **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](#)

## INVITED LECTURES

- Seminar at **University of California Davis**, Davis CA, Sep 30 2022
- Lecture for Careers in Transportation Class at **University of Florida**, Virtual, Sep 1 2022
- Sustainable Road Transportation Seminar at the **Zhejiang University Smart City Global Summer School**, Virtual, Aug 1 2022 [Link](#)
- Speaker at **Illinois Commerce Commission’s Beneficial Electrification Workshop - Charging**, Virtual, Feb 23 2022
- Intelligent Transportation Seminar speaker at **Hong Kong University of Science and Technology (Guangzhou)**, Virtual, Feb 18 2022
- Spring Planning Colloquium speaker at **Department of Urban and Regional Planning University of Illinois at Urbana-Champaign**, Virtual, Jan 25 2022
- Gamma Seminar Series speaker at **University at Buffalo**, Virtual, Nov 18 2021
- Seminar at **American Council of Engineering Companies** of Illinois, Nov 10 2021
- Seminar at **Northwestern University**, Evanston IL, Nov 4 2021
- Seminar at **University of Illinois at Chicago**, IL, Oct 8 2021
- 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-Gen Transportation Systems Seminar, **University of Michigan**, 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](#)

- UNC CleanTech Summit, **UNC Chapel Hill**, NC, Mar 1-2 2018

**GRANTS****Research**

**Net-Zero Infrastructure** **2021-22**

**Discovery Partners Institute**, \$25,000 (Total \$125,000)

**Co-PI** with PI Farhad Ansari and other Co-PIs from UIC, UIUC, and Cardiff University

**Electric Vehicle Infrastructure Plan in Illinois** **2021-22**

**Illinois Department of Transportation**, \$238,415, **PI**

**Equipment and Software for the Next-Generation Transportation Systems Lab** **2021**

**Grainger Small Equipment Grant**, \$84,885

**PI** with Co-PIs Benekohal, Lehe, Meidani, Ouyang, Talebpour (UIUC)

**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**, \$50,000 (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 Energy Models Graduate course**  
University of Illinois at Urbana-Champaign, Fall 2020 and Fall 2021 (avg. 15 students)
- **Instructor CEE 201: Systems Engineering and Economics BSc course**  
University of Illinois at Urbana-Champaign, Spring 2020 and Spring 2022 (avg. 70 students)

**LATEST AWARDS**

- **2022 Illinois-Indiana Sea Grant Faculty Scholar**, Faculty award [Link](#)
- **2021 US Frontiers of Engineering**, Invited Participant (honor for outstanding early career academics), National Academy of Engineering, 2021 [Link](#)
- **iSEE Levenick Teaching Fellowship**, Sustainability Teaching Fellow, UIUC, 2020 [Link](#)
- **Cloud Research Support Engineer Honorarium**, Pervasive Technology Institute, Indiana University, 2019

- **Future Industry Leader Spotlight Award**, American Road & Transportation Builders Association, 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

## STUDENTS & AWARDS

- Denissa Purba (PhD student) 2020-Present
  - WTS Greater Chicago Executive Partners Scholarship, 2021 [Link](#)
  - INFORMS OR/MS Tomorrow Mini Poster Competition, PhD level first place winner, Fall/Winter 2020 [Link](#)
- Shanshan (Shirley) Liu (PhD student) 2020-Present
  - WTS Greater Chicago Leadership Legacy Scholarship for Graduates, 2022
  - Midwest Big Data Hub Learning Innovation Fellowship, 2021
  - Accepted to the ARPA-E Energy Innovation Summit Student Program, 2021
  - Pecan Street Vehicle-to-Grid University Challenge Winner Team Lead, 2021 [Link](#)
- Ruolin Zhang (PhD student) 2021-Present
  - Transportation Engineering Fellow, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, 2021-2022
- Yen-Chu Wu (MSc student) 2020-Present
  - WTS Greater Chicago President's Scholarship, 2022
  - Transportation Engineering Fellow, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign, 2020-2021
- Angel Montero (MS Student - non thesis) 2021-Present
  - Fellow, Dwight David Eisenhower Transportation Fellowship Program (DDETFP) Graduate Fellowship, 2021
- Simon Balisi (BS ISE student) 2020-Present
  - INFORMS Undergraduate Research Prize Finalist, 2021
  - Honorable mention for his poster at the Numbers and Computation section of the UIUC Undergraduate Research Week, 2021 (mentored by Denissa Purba) [Link](#)
- Joe Ye (BS ISE student at Cornell) 2020-Present
  - INFORMS OR/MS Tomorrow Mini Poster Competition, Undergraduate level second place winner, Fall/Winter 2021 [Link](#)

## LEADERSHIP National-level

- **Member of the Editorial Advisory Board**, Transportation Research Part D: Transport and Environment journal, 2022-Present
- **Member of Early Career Editorial Advisory Board**, Transportation Research Part C: Emerging Technologies journal, 2021-23
- **Member and Communications Coordinator**, Standing Committee on Alternative Transportation Fuels and Technologies (AMS40), National Academies of Sciences, Engineering, Medicine, Transportation Research Board, 2017-23
- **Chair**, Young Member Coordinating Council, National Academies of Sciences, Engineering, Medicine, Transportation Research Board, 2021-23

**Campus**

- Illinois Climate Action Plan (iCAP) Transportation SWATeam Co-Chair, 2020-22

**College**

- Faculty Mental Health Ambassador, 2022 [Link](#)
- Grainger College of Engineering Diversity Committee, Member, 2020-21
- Anti-Racism Task Force (lead: Tandy Warnow CS), Member, Jun-Aug 2020

**Department**

- THRIVES Committee Member, 2022-23
- Graduate Ambassadors Committee Member, 2022-23
- EWES Program Graduate Admissions Coordinator, 2020-21

**ASSOCIATIONS**

- **INFORMS**, Member, 2020-Present
- **American Association for the Advancement of Science**, Member, 2019-Present
- **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**

- National Science Foundation Review Panel 2020, 2021, and 2022
- AAAS E-Poster Competition Judge, 2021
- Sloan Foundation Proposal Review 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
- Energy Policy
- 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
- Nature Sustainability
- Sustainable Cities and Society
- Transport Policy

- Transportation
- Transportation Research Part A: Policy and Practice
- Transportation Research Part B: Methodological
- Transportation Research Part C: Emerging Technologies
- Transportation Research Part D: Transport and Environment
- Transportation Research Part E: Logistics and Transportation Review
- Transportation Research Record: A Journal of the Transportation Research Board

## MEDIA

Dr. Kontou's research and expertise requested for and covered by the following articles:

- **Illinois News Bureau** expert's viewpoint provided by Dr. Kontou discussing how to evacuate with electric vehicles, August 31 2022 [Link](#)
- **dot.LA** quote by Dr. Kontou on electric vehicle supply chains and new policies in California, August 25 2022 [Link](#)
- **Daily Herald** quote by Dr. Kontou on electric vehicle charging infrastructure planning in the state of Illinois, August 4 2022 [Link](#)
- **Reuters** quote by Dr. Kontou on teleworking and telecommuting energy use, May 5 2022 [Link](#)
- **SciLine** — **AAAS** video comment, with Dr. Kontou discussing transportation environmental issues discussed in COP26, November 12 2021 [Link](#)
- **WBUR Here and Now** radio comment, with Dr. Kontou discussing potential of solar power usage for transportation electrification, September 22 2021 [Link](#)
- **WIRED** magazine article mentions Dr. Kontou who is commenting on the administration's plan to increase the number of electric cars on the road, August 10 2021 [Link](#)
- **WCIA3 TV** appearance, with Dr. Kontou commenting on President's ambitious transportation electrification plans, August 8 2021
- **Victoria Advocate** mentions Dr. Kontou discussion on electric vehicle goals set by US agencies, June 12 2021 [Link](#)