Kenny Chandra Wijaya

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Education

PhD in Civil Engineering (Transportation) Aug. 2023 - Jul. 2026 (Expected)
Lyles School of Civil & Construction Engineering *Purdue University*
CGPA: **3.94** on a 4.00 scale base
Dissertation title: Beyond Infrastructure Development: Assessing Accessibility to, Preferences for, and Utilization Behaviors of Electric Vehicle Charging Infrastructure
Research Advisor: Prof. Dr. Konstantina Gkritza

M.Sc. in Civil Engineering (Transportation) Aug. 2020 - Jun. 2022
Department of Civil & Environmental Engineering *National Taiwan University*
CGPA: **4.19** on a 4.30 scale base
Dissertation title: Electric Vehicle Morning-Evening Commute Departure Time and Charging Opportunities Choice Equilibrium Model
Research Advisor: Prof. Dr. Katsuya Sakai
Research Co-Advisor: Prof. Dr. Yu-Ting Hsu

B.Sc. in Civil Engineering Aug. 2016 - Jul. 2020
Department of Civil & Environmental Engineering *Bandung Institute of Technology*
CGPA: **3.34** on a 4.00 scale base
Final Project: Transportation Design Aspect of Joyoboyo Multi-modal Facility
Final Project Advisor: Prof. Dr. Eri Susanto Cahyadi

Research Interest

- Travel Behavior, Urban Transportation and Land Use Planning, Transport Policy, Transport Economics, Transport and Health, Disaster Recovery, Socio-Technical, Socio-Psychology, Accessibility, Equity.

Research Experience

Graduate Research Assistant Aug. 2023 - Present
Sustainable Transportation System Research Group *Purdue University*
PI: Prof. Dr. Konstantina Gkritza

- Designed a **choice experiment** and conducted **market analysis** to assess consumer **willingness to pay** and evaluate dynamic wireless charging technology's **attributes importance**, providing insights into market viability and **pricing elasticities**.
- Developed **structural equation model** to examine the relationship between charging station built environments and EV users' **perceived accessibility** using survey data.
- Developed a **evolutionary game theory model** to evaluate the effectiveness of **charging cost structures, penalties, incentives, and non-pricing policies** in discouraging overstaying behavior at EV charging stations
- Optimize charging station service efficiency through **dynamic state of charge limit policy**.
- Developed a framework that combine both **Theory of Planned Behavior and Norm Activation Model** in the form of survey questions to understand **prosocial charging behavior** of EV users.
- Conducted **consumer segmentation and demand forecasting, analyzing preference heterogeneity, willingness to pay, and feature importance** across first-mile/last-mile transportation modes.

Research Fellow Feb. 2023 - Jul. 2023
Mobility System Joint Research Chair *Osaka University*
PI: Prof. Dr. Katsuya Sakai

- Developed mathematical programming model to **optimize post-disaster transportation network recovery**.
- Assessed recovery-strategy's **equity using a Pareto-improvement framework**.
- Presenting research in the 9th International Symposium on Transport Network Resilience.

Graduate Research Assistant Aug. 2020 - Dec. 2022
YT & Sakai Lab *National Taiwan University*
PI: Prof. Katsuya Sakai & Prof. Yu-Ting Hsu

- Developed a **choice experiment** survey to analyze preferences for round-trip commute departure times.
- Developed an equilibrium EV **departure-time model** for one-day round-trip commuting behavior.
- Applied **dynamic time-based pricing** to alter EV users' charging behavior and achieve **system-optimal** outcomes
- Presenting research in the 12th Asian Conference in Regional Science and the 33rd KKHTCNN.

Professional Experience

Railway Infrastructure Maintenance Intern Jul. 2019 - Aug. 2019
PT. MRT Jakarta *Indonesia*

- Routine track infrastructure check.
- Report minor and major track failure and propose a mitigation solution.

Jabodebek Light Rail Transit (LRT) Intern Jun. 2019 - Jul. 2019
PT. Adhi Karya (Persero) Tbk *Indonesia*

- Built a supervised ML models to forecast erection time for each as-built drawing items.
- Supervise the health and safety practices of the LRT construction site.
- Analyze the quantity-take-off of the as-built drawing.

Sponsored Research

Funding: Indiana Department of Transportation, USA Oct. 2023 - Oct. 2025
SPR 4811: Simulating current and future EV growth scenarios in Indiana *Funds: $371,317*

- **My Role:** Student Co-Lead; PI: Dr. Satish V. Ukkusuri; co-PI: Dr. Konstantina Gkritza

Funding: Indiana Department of Transportation, USA Aug. 2022 - Aug. 2024
Electric Vehicles: Public Perceptions, Expectations, and Willingness-to-Pay *Funds: $175,249*

- **My Role:** Student Co-Lead; PI: Dr. Konstantina Gkritza; co-PI: Dr. Satish V. Ukkusuri & Dr. Samuel Labi

Peer-Reviewed Journal Articles

Note: My name is in bold letters; "*" sign represents my role as the corresponding author

[1] **Wijaya, K. C***, Humagain, P, & Gkritza, K. (2025). Public preferences for stationary wired and dynamic wireless electric vehicle charging technologies. *Transportation Research Part D: Transport and Environment*, *142*(104680), https://doi.org/10.1016/j.trd.2025.104680

[2] Shih, H.-C, **Wijaya, K. C.**, Hsueh, H.-Y., & Hsu, Y.-T. (2024). Away from over-populated development: Estimating urban carrying capacity with an integrated perspective of transportation and urban planning. *Transport Policy*, https://doi.org/10.1016/j.tranpol.2024.12.010

Peer-Reviewed Conference Presentations/Proceedings

[1] **Wijaya, K. C.**, Humagain, P, & Gkritza, K. (2024). Electric Vehicles Overstaying Behavior in Fast Charging STation: System Dynamics and Evolutionary Game Theory Approach. *Euro Working Group Transportation (EWGT) 2025*, September 1-3, Edinburgh, United Kingdom.

[2] **Wijaya, K. C.**, Humagain, P, & Gkritza, K. (2024). Assessing Preferences for Dynamic Wireless Power Transfer in Public Charging Choices Among Experienced and non-Experienced EV Users. *IEEE*

Wireless Power Transfer Conference & Expo (WPTCE) 2024, 598–602, May 8-11, 2025, Kyoto, Japan.

[3] **Wijaya, K. C.**, Humagain, P, & Gkritza, K. (2024). Public Charging Preferences for Long Distance Electric Vehicle Travel: A Stated Choice Experiment Among Experienced and non-Experienced Users. *IEEE Forum on Integrated and Sustainable Transportation System (FISTS) 2024*, 1-6, February 26-28, Riverside, USA.

Working Papers

[1] **Wijaya, K. C.**, Moras, B.C.K., Humagain, P., & Gkritza, K. (2025). Perceived Accessibility of Electric Vehicle Charging Station: Revealed Contributing Factors and Conceptual Framework. *Manuscript under 2nd round review*

[2] **Wijaya, K. C.**, Yu, D.J., Burra, L.T., & Gkritza, K. (2025). Addressing Overstaying Behavior at Electric Vehicle Charging Station in Social Dilemma Setting. *Manuscript under review.*

[3] **Wijaya, K. C.**, Christ, S.L., Burra, L.T., Yu, D.J., & Gkritza, K. (2026). Unconditional or Reciprocal Prosocial Charging Behavior?. *Data Collection Phase.*

[4] Humagain, P., **Wijaya, K.C.**, Liu, T., Song, Z., Singleton, P., & Gkritza, K. (2026). Preference heterogeneity in the choice of first-mile mode to transit: A case study of Salt Lake City MSA. *Manuscript under review.*

Book Chapter

[1] Hsu, Y.-T., **Wijaya, K. C.**, & Shih, H.-C. (2024). COVID-19 public transport responses in Taipei and Kaohsiung. In International Perspectives on Public Transport Responses to COVID-19. *International Perspectives on Public Transport Responses to COVID-19*, *177–189*, https://doi.org/10.1016/b978-0-443-13295-7.00009-5.

Honors and Awards

Eldon J. Yoder Memorial Award 2025
Awarded by Lyles School of Civil and Construction Engineering, Purdue University. USA

Kinnier Travel Scholarship Award 2025
Awarded by Lyles School of Civil and Construction Engineering, Purdue University. USA

IEEE WPTCE 2025 Travel Grant Award 2024
Awarded by IEEE Wireless Power Transfer Conference and Expo (WPTCE) 2025. Japan

PGSG Travel Grant Award 2024
Awarded by Purdue Graduate Student Government (PGSG). USA

IEEE FISTS 2024 Best Poster Runner-up Award 2024
Awarded by IEEE Forum for Innovative Sustainable Transportation Systems (FISTS) 2024. USA

ISF Travel Grant Award 2024
Awarded by Institute for a Sustainable Future. USA

Dean's List Award 2022
Awarded by College of Engineering, National Taiwan University. Taiwan

Transportation Analysis Competition Finalist 2018
Awarded by Civil National Expo, Tarumanegara University. Indonesia

Teaching Experience

Graduate Teaching Assistant Aug. 2021 - Aug. 2022
Department Civil & Environmental Engineering *National Taiwan University, Taiwan*

- CIE 7021 Urban Transportation Planning
- CIE 5104 Traveler Behavior Analysis

Peer-Reviewer Experience

Journal Review

- Transportation Research Part D: Transport and Environment.
- Transportation Research Part A: Policy and Practice.
- Transport Policy
- Travel Behaviour and Society.
- IEEE Transactions on Intelligent Transportation Systems.
- Case Studies on Transport Policy.

Conference Review

- Transportation Research Board.
- Eastern Asia Society for Transportation Studies.

Research Mentorship

Undergraduate Students

- Matthew Wind, Purdue University (2023 - 2024)

Professional Memberships

American Society of Civil Engineers (ASCE)	Student Member (2023 - Present)
Institute of Electrical and Electronics Engineers (IEEE)	Student Member (2024 - Present)
Network on European Communications and Transport Activities Research (NECTAR)	Student Member (2024 - Present)
International Association for Travel Behaviour Research (IATBR)	Student Member (2025 - Present)
Institute of Transportation Engineers (ITE)	Purdue University Student Chapter Member (2023-Present)

Technical Skills

Programming Languages	Python, R
Modeling & Statistics	Discrete Choice Modeling, Causal Inference, Regression Model, GLMs, Factor Analysis, Structural Equation Modeling, Machine Learning, Stochastic Simulation, Optimization, Survey Sampling & Methods
Data Engineering	Data Cleaning, Feature Engineering, Relational Database, Data Merging, API Data Scraping
Visualization	Matplotlib, Seaborn, ggplot, ArcGIS Pro, GeoPandas
Optimization Tools	AMPL, Gurobi
Computer-Aided Drafting	AutoCAD
Simulation Software	STROBOSCOPE
Office Software	Microsoft Word, Excel, PowerPoint