Dynamic Wireless Power Transfer, Mathematical Modeling, Optimal Location

Decarbonized Mobility Infrastructure Strategy, Social Cooperation Program

[Dynamic Wireless Power Transfer & Mathematical Modeling]

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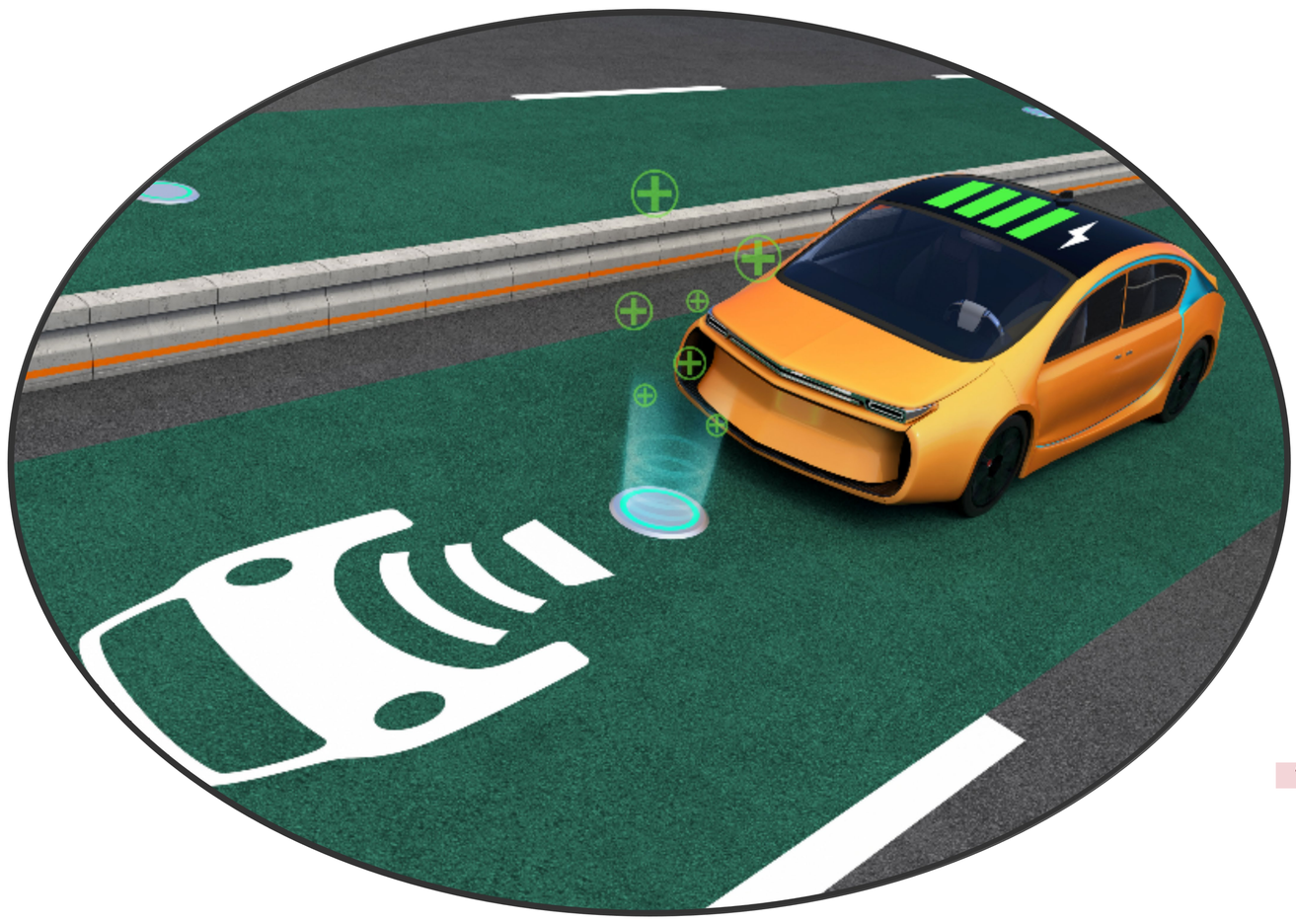
As electric vehicles become increasingly widespread for carbon neutrality, infrastructure strategies for Dynamic Wireless Power Transfer (DWPT) systems—capable of supplying power while vehicles are in motion—become essential for realizing decarbonized mobility. Looking ahead to a transformation of mobility and energy systems, we aim to develop infrastructure strategies centered on DWPT.



Research Design

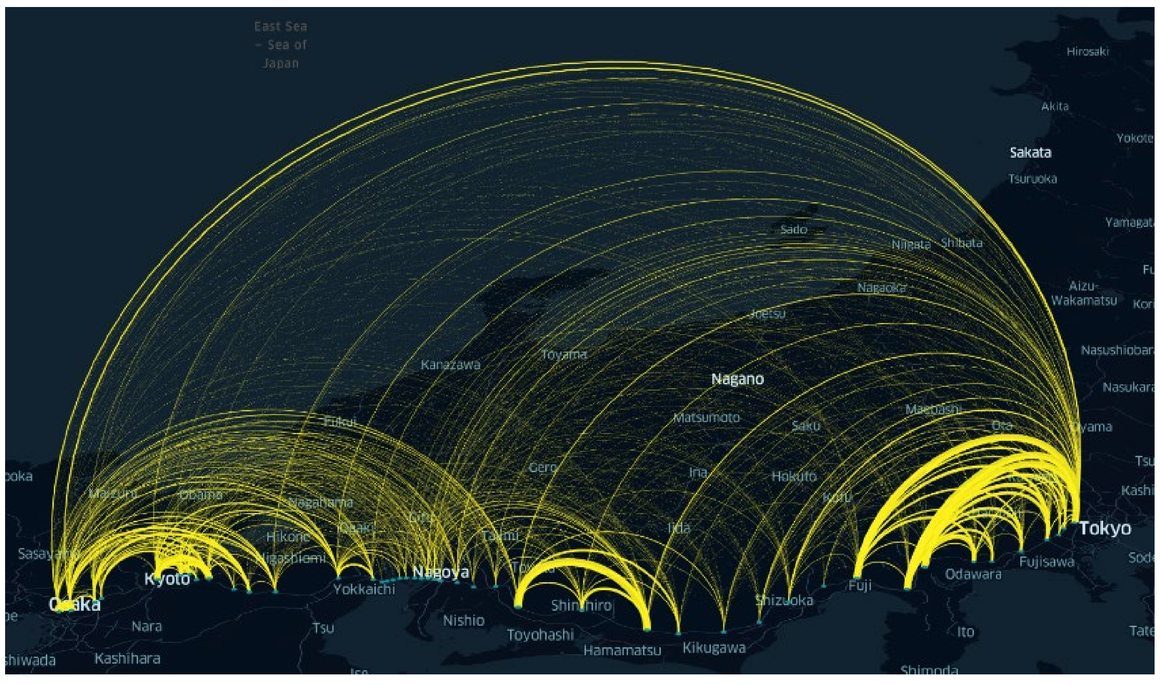
Urban & national optimal location

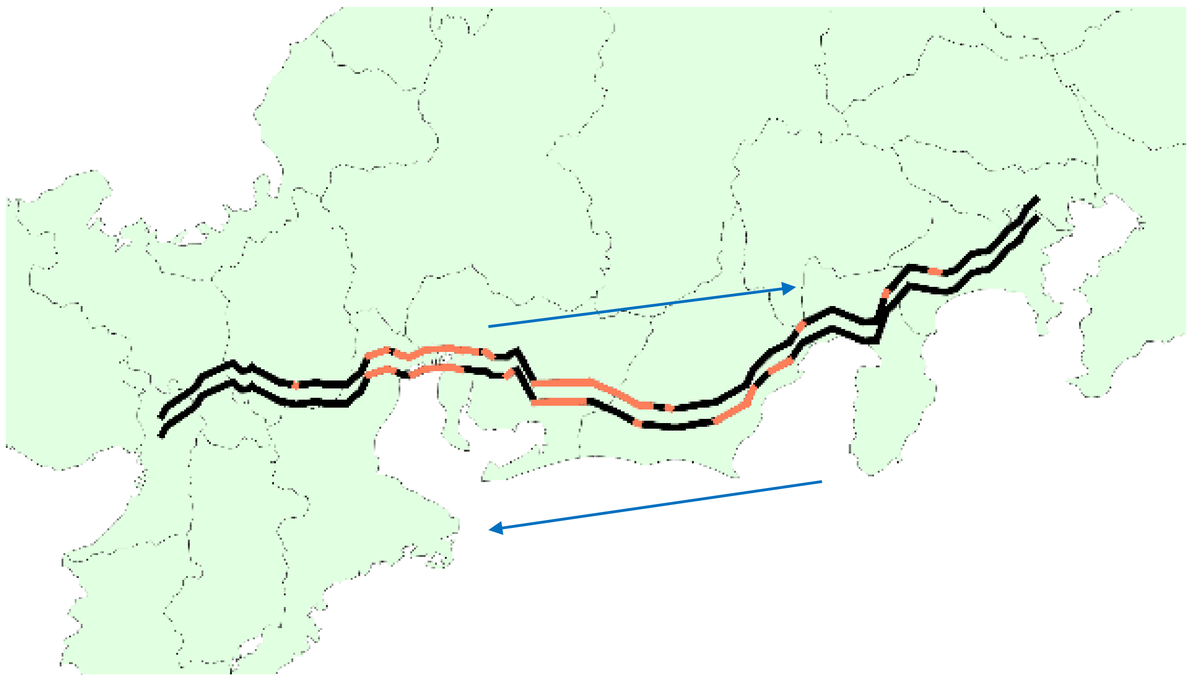
Integrated transport–power design

Operations, policy & feasibility

Autonomy, ITS & distributed energy integration

Targeting urban and national scales, we integrate large-scale datasets—including driving data, transportation networks, and energy infrastructure. By combining data analysis and mathematical optimization, we propose sustainable and flexible mobility–infrastructure coordination models.





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