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| UTC Project Information |
| Project Title | MPC-697 – A Microscopic Approach for Electric Vehicle Demand Estimation |
| University | University of Utah |
| Principal Investigator | Xiaoyue “Cathy” Liu, Ph.D., P.E. |
| PI Contact Information | Associate ProfessorDepartment of Civil and Environmental EngineeringUniversity of Utah110 Central Campus Dr., Suite 2000Salt Lake City, UT 84112Phone: (801) 587-8858Email: cathy.liu@utah.eduORCID: 0000-0002-5162-891X |
| Funding Source(s) and Amounts Provided (by each agency or organization) | USDOT, Office of the Assistant Secretary for Research and Technology$60,000GEIRINA (Global Energy Interconnection Research InstituteNorth America)$75,000 |
| Total Project Cost | $135,000 |
| Agency ID or Contract Number | 69A3551747108 |
| Start and End Dates | October 13, 2022 to July 31, 2023 |
| Brief Description of Research Project | This study aims to produce a realistic and high-resolution public charging simulation environment and provide practical guidance for future charging station deployment. There are three specific objectives to achieve this goal:1. We will build an agent-based model to model the daily activities of all drivers within a study region;
2. We will estimate EV user distributions and charging demand based on socioeconomic attributes and public charging decision rules; and
3. We will develop an optimization framework based on the estimated public charging demand to efficient solve the EVSE allocation problem, in an effort to maximize the coverage of total charging demands under investment costs and load capacity constraints.
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| Describe Implementation of Research Outcomes (or why not implemented)Place Any Photos Here |  |
| Impacts/Benefits of Implementation(actual, not anticipated) |  |
| Web Links* Reports
* Project Website
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