

ELEVATE: Enhancing ElevatorGroup Management System

CPG: 48 | UEC 797: Capstone Project | CSED Department| Mentor: Dr Rajiv Kumar

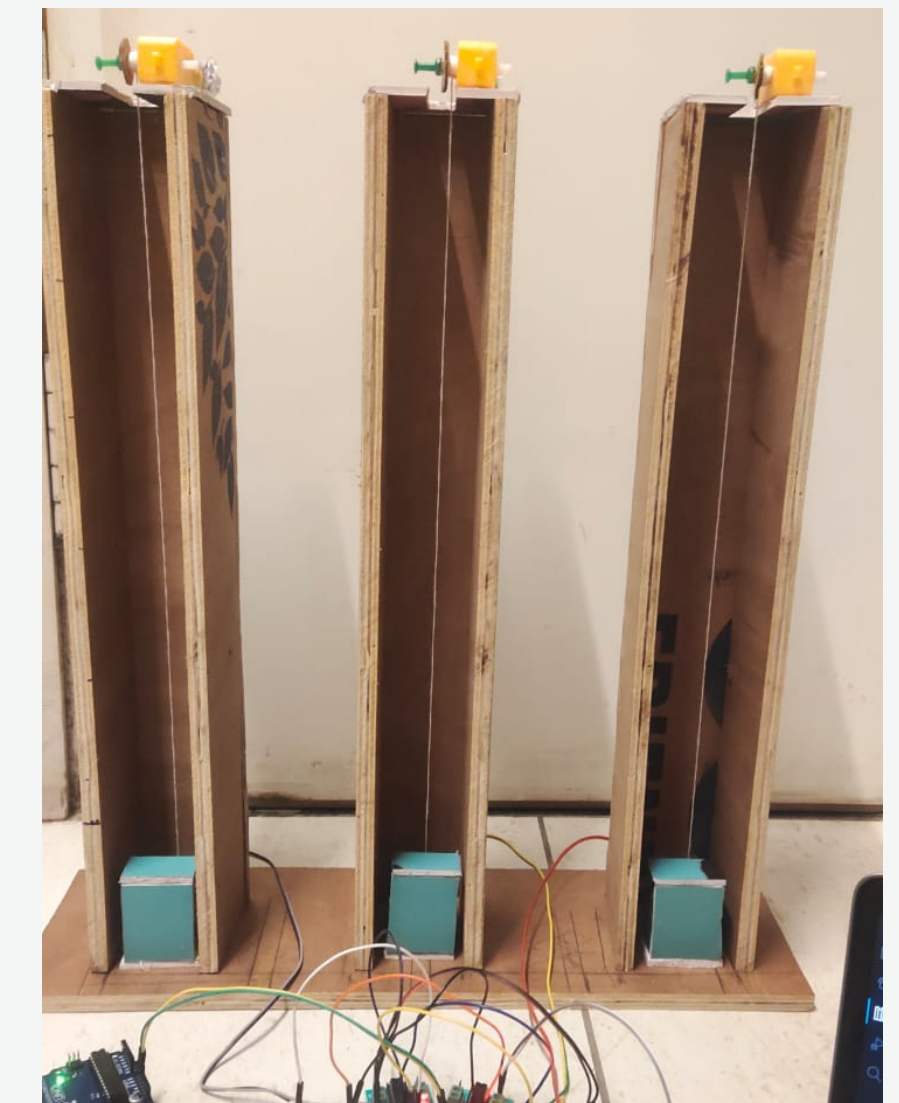
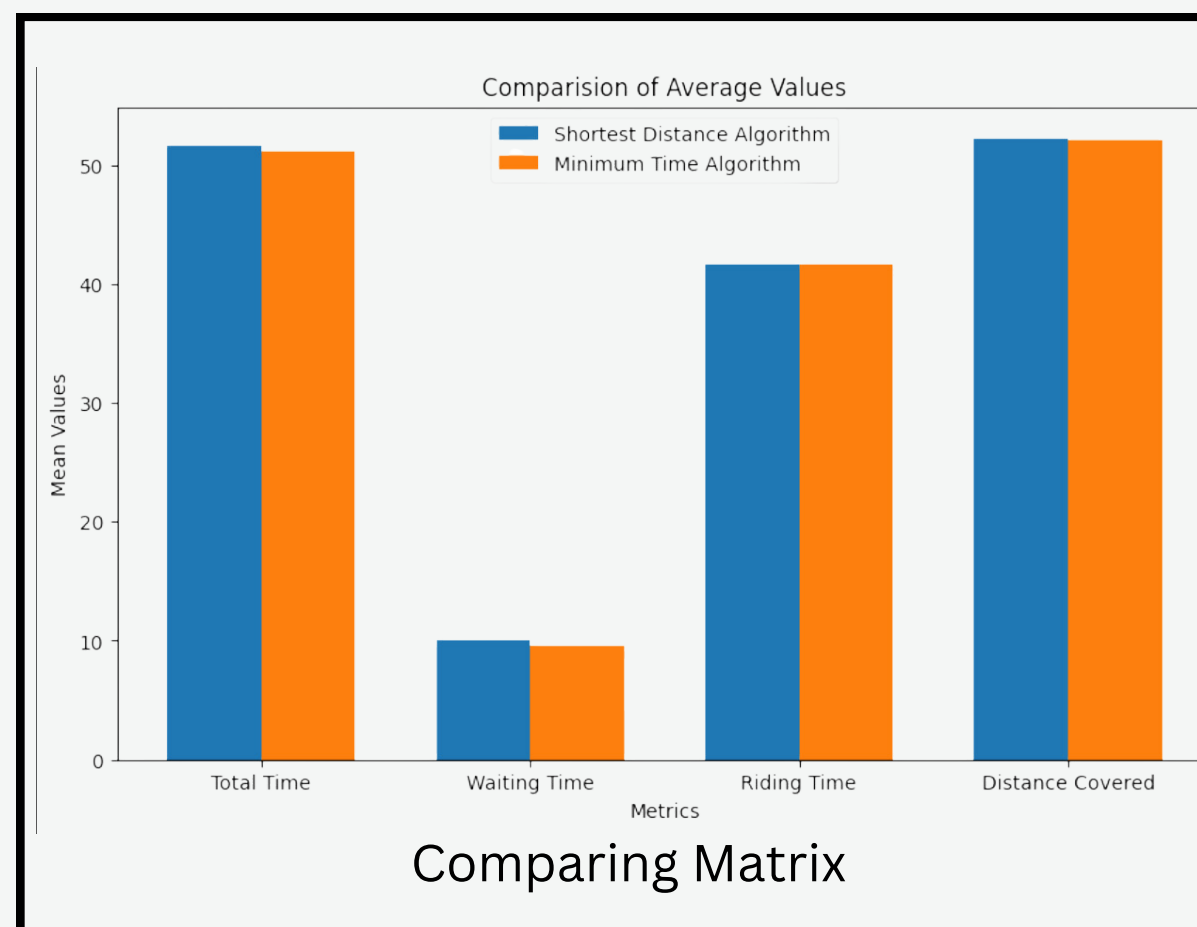
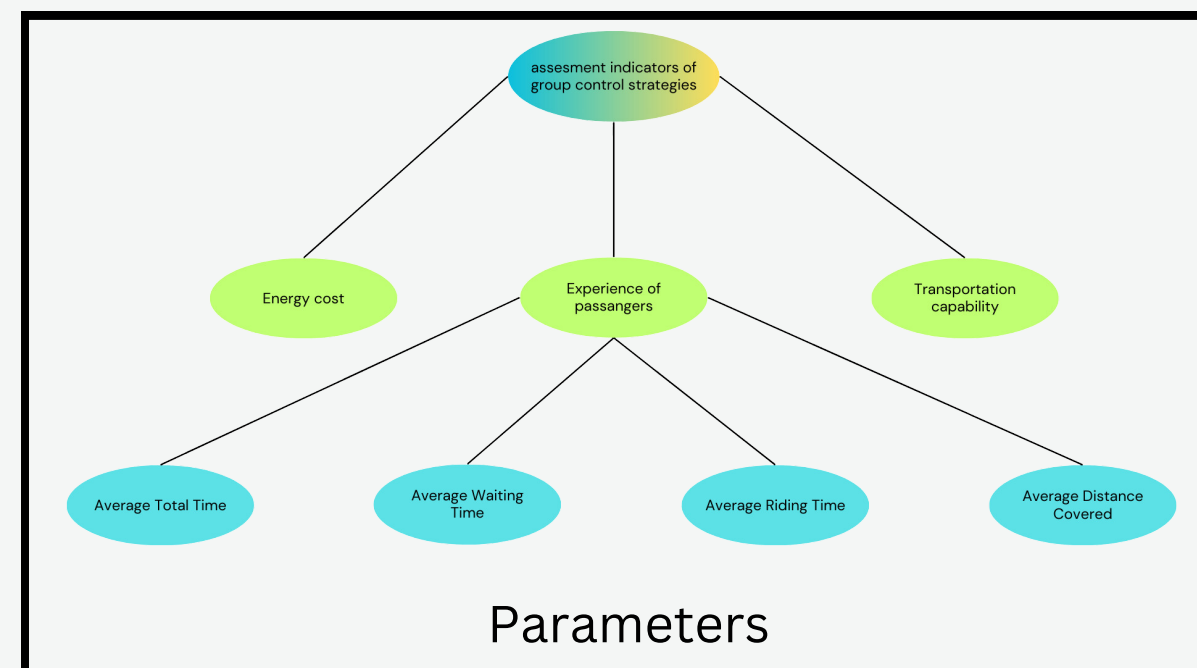
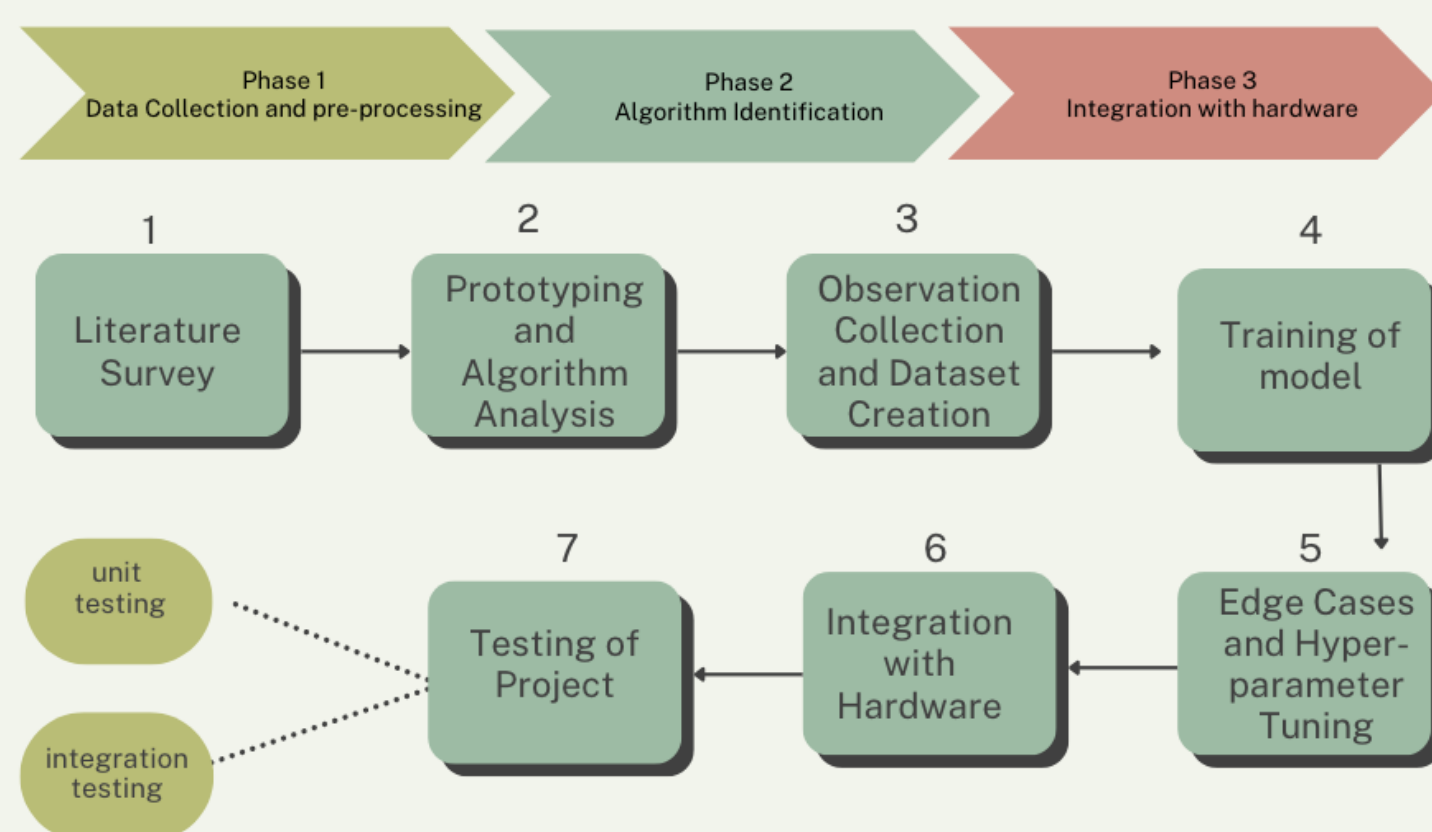
Introduction

We aim to use advanced AI and ML technologies to enhance elevator scheduling algorithms, creating a trade-off between passenger satisfaction (minimum wait time) and Energy Efficiency(Shortest distance).

Objectives

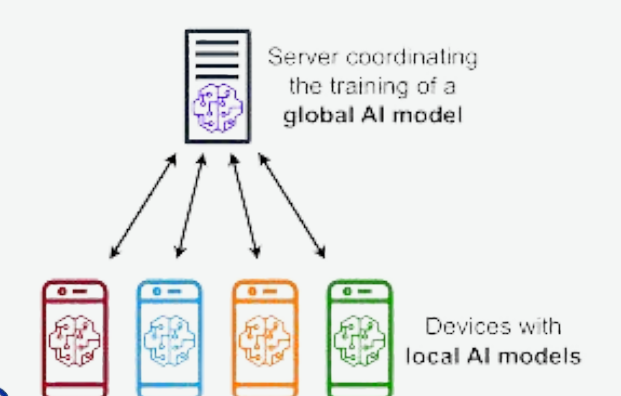
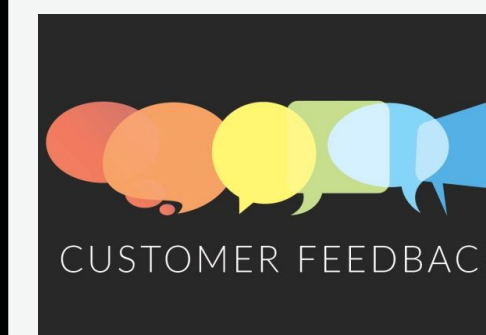
- 1.To understand the existing elevator group structure.
- 2.To explore the best machine learning and deep models to optimize elevator group performance.
- 3.To increase the system's efficiency by developing algorithms responding to occupancy levels,user inputs, and traffic patterns routinely used in elevator lobbies.
- 4.To reduce the system's power consumption by incorporating various optimization algorithms.

Methodology



Hardware

Future Scope



Federated learning for increased security

Conclusion

The implemented algorithms intelligently respond to occupancy levels, user inputs, and traffic patterns, optimizing elevator scheduling and enhancing energy efficiency. The system's scalability and potential for future enhancements promise to usher in new possibilities, making vertical transportation an even more efficient and intelligent aspect of modern building management.