研究企画書

Master's Thesis Research Plan

Student ID No.	m5282019	提出日 Submitted Date	2024-11-26
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研究名 Research Title	Building Energy Efficient Traffic Congestion Prediction System		

概要 Abstract

Motivation:

Urban traffic congestion affects mobility, energy efficiency, and environmental sustainability. Existing systems focus on speed but neglect real-time congestion, weather, and energy considerations. This research aims to address these gaps by integrating traffic and weather data with energy-efficient modeling. By doing so, the system seeks to provide actionable insights for improving urban transportation infrastructure.

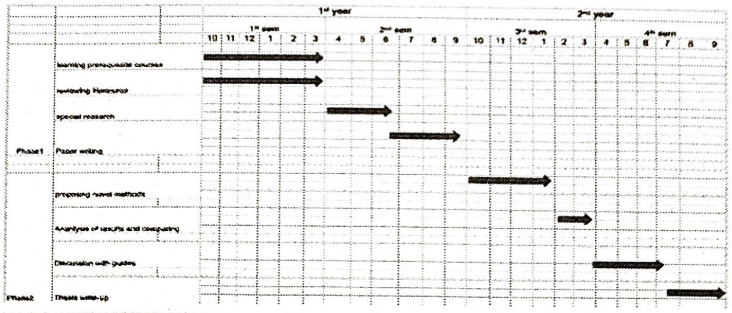
Goal:

To develop a traffic forecasting system using MTL-NN, optimized for power and memory consumption, and integrate rainfall data to recommend safer, congestion-free routes. The system will balance efficiency and usability to address both environmental and user-centric needs.

Approach:

The study involves MTL-NN model development for traffic prediction, evaluation of power and memory efficiency, integration of traffic and rainfall data, and implementation of a route recommendation system prioritizing minimal congestion and rainfall. Additionally, the system will leverage advanced optimization techniques to ensure real-time usability and scalability.

Schedule:



指導教員 Research Advisor	RAGE Uday Kiran	Seal

指導教員コメント Research Advisor's Comments for the Plan

Present your experimental setup and experimental findings clearly

Describe your proposed approach in depth