Sustainable Mobility Tracker: Car Metrics Calculator

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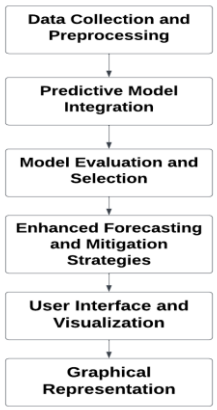
Abstract

This study addresses the crucial role of adequate CO2 levels in supporting vegetation and ecological balance. However, excessive CO2 emissions from industrial sources and transportation, including land, space, and oceanic vehicles, contribute significantly to the greenhouse effect, global warming, and climate change.
The focus here is on the concern over CO2 emissions from vehicles, particularly cars, and the importance of accurate predictive models for forecasting these emissions.
This work proposes the implementation of four prediction models – Linear Regression, Ridge Regression, Lasso Regression, and Elastic Net Regression - alongside existing models to enhance the accuracy of forecasting CO2 emissions and guide effective strategies for mitigation.

Architecture Diagram



Significance of the Project

This project is significant as it addresses the critical issue of excessive CO2 emissions from vehicles, a major contributor to global warming and climate change. By developing and implementing accurate prediction models, it offers a practical tool for guiding mitigation strategies and promoting a more sustainable future by reducing emissions and supporting ecological balance.

Conclusion

In conclusion, this study underscores the vital role of maintaining appropriate CO2 levels for ecological balance. Excessive CO2 emissions from various vehicles contribute significantly to global warming and climate change. Implementing predictive models, such as Linear Regression, Ridge Regression, Lasso Regression, and Elastic Net Regression, alongside existing methods, can enhance CO2 emission forecasting accuracy and aid in effective mitigation strategies.

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