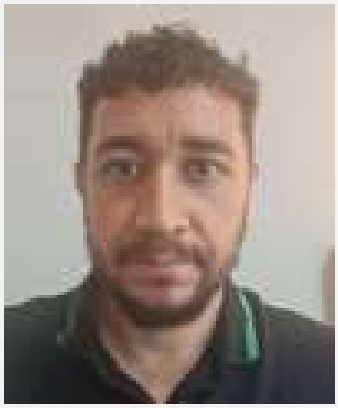
Improving sustainable mobility for university campuses through machine learning models



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Summary

The social transformation caused by the COVID-19 pandemic can help universities become healthier and more sustainable with more space for active modes of transport. In this sense, the methodological approach presented in this thesis project aims to investigate the best opportunities for increasing sustainability in the mobility of university campuses, considering the post-pandemic scenario.

In addition, Machine Learning methods can be versatile tools to utilize and harness the hidden power of the data already collected, enabling the discovery of specific mobility patterns and trends to improve decision-making.

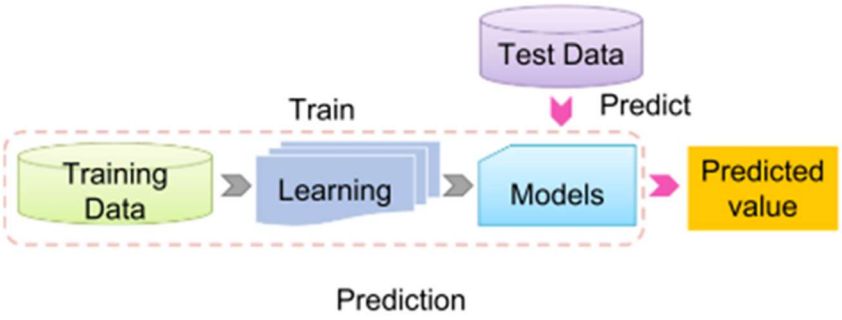
The main objective of the present research is to investigate how to promote sustainable mobility on university campuses considering the post-pandemic scenario.

More specifically, the objectives of the present work are:

- Identify barriers, problems, and difficulties in promoting active modes of transport in the university environment;
- Show the best opportunities to promote sustainable mobility on university campuses;
- Improve decision-making in developing sustainable mobility plans using machine learning techniques.

Keywords

University campuses mobility, sustainability, alternative modes, machine learning.



Framework of applying supervised ML approaches for prediction.

Source: (Wei, Bao, and Ruan 2022)