Research Tile: *The resilience of the Jamaican road network to the possible effects of climate change*

Aim: The aim of the research project is to investigate how current road management strategies will be affected by changes in climate and to subsequently suggest remedial measures that may be used by Engineers and general practitioners in the management of road maintenance activities.

Objectives:

The objectives of the research are as follows:

1. To investigate how climate change will affect pavement design standards, and in particular to identify pavement design parameters that are most sensitive to changes in climatic effects in Jamaica.
2. To investigate the long-term performance of different types of road pavement by studying the progression of key pavement defects of rutting, cracking and roughness.
3. To study properties of current materials that will significantly be affected by climate change in Jamaica.
4. To study the impacts of climate change on road users by investigating its impacts on: congestion/delays, driver behaviour, and vehicle performance in Jamaica.
5. To quantify the life cycle costs of the impacts of climate change to road agencies and road users in Jamaica.
6. To develop a framework that can be used in the assessment of the impact of changing weather events on the road infrastructure.

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