Decision Support System (DSS) for Urban Mobility

Top level plan for impact assessment of PBT in GaBi
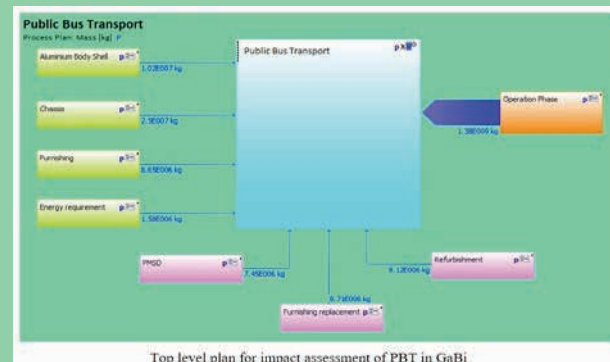
Problem Statement: India is a developing country with its road infrastructure and urban mobility developing rapidly. Therefore, it is necessary to evaluate the environmental impacts from road infrastructure and urban mobility throughout its life cycle. A tool for assessing the environmental impacts from road infrastructure and urban mobility and providing measures to reduce its impact is highly essential. There is some proprietary software like Decision Support System (DSS), but they are too costly and requires extensive time and effort for data collection; such a Decision Support System is essential for evaluating the environmental impacts. Addressing this gap, the researchers at IIT Bombay are proposing to develop a Decision Support System to assess the environmental impacts due to road infrastructure and urban transportation.

Uniqueness of the Solution: The DSS tool will require to feed standard details of road pavement such as the number of lanes, width of each lane and length for which the user needs to evaluate the environmental impacts. Similarly, for urban mobility, the user will be required to feed data such as travel distance, fuel type, and the environmental impact will be estimated by the DSS tool. Since the tool would have all the key standards against which the impact assessment needs to be done, the evaluation can be done rapidly based on the input details.

Current Status of Technology: DSS tool development for road infrastructure is in the initial stage, and urban mobility is in the intermediate stage.

Societal Impact: The adverse environmental impacts due to road infrastructure and urban mobility are also related to society. These environmental impacts can cause adverse effects on human health and the whole society.

Patent(s): Nil

Relevant Industries: Cities, Towns, Urban Local Bodies, Municipalities.

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