

Transition to Electricity-based Urban Mobility in India: Analysis of Barriers, Drivers and Consumer Willingness

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Abstract : Electric mobility (e-mob) is one of the significant actions proposed for sustainable urban transport in India. The current efforts are aimed at reducing the carbon-dioxide (CO₂) emissions and environmental pollution through a smooth transition from fossil-fueled mobility (f-mob) to e-mob. The study summarizes the e-mob landscape in India, its roadmap, the expected challenges relevant to the consumer preferences and perceptions. In addition to the challenges of transition from f-mob to e-mob, the sustainability of e-mob is more crucial as it involves addressing challenges related to three dimensions, namely, environmental, economic, and social sustainability. The critical factors in each of these dimensions are analyzed. The recommendations for attaining sustainability are suggested to enable a successful transition from f-mob to e-mob. The specific objectives of the research include a detailed synthesis of urban mobility landscape, analyses of various stakeholders' behaviors, drivers, and barriers influencing the transition, measures to boost the drivers and mitigate the barriers. The study also aims to arrive at policy recommendations and strategies for a successful and sustainable transition from f-mob to e-mob, reducing the carbon footprint due to transportation.

Keywords : electricmobility, urbanmobility, transportation, consumerbehaviour, carbonemission

Conference Title : ICUTE 2024 : International Conference on Urban and Public Transportation Engineering

Conference Location : Singapore, Singapore

Conference Dates : July 04-05, 2024