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Electric Vehicle Battery Modelling and Performance Comparison in Relation to Range Anxiety (Conference Paper)

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Abstract

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In electric vehicle, rechargeable battery served as energy source for all its system operation which include electric motor for propulsion system and also other auxiliary components. Therefore, it becomes an important issue to be tackled in EV technology in order to enhance the battery energy capacity for long range operation. In general public view, people tend to be very concern in purchasing the electric car. One of the concerns lies on the question of how far they can travel with only battery for their car propulsion means. Therefore, this study tries to investigate the relation between battery types and the range anxiety faces by electric car makers. The investigations reveals that, Li-ion as the battery with high energy density cover more area or distance travel.

Author keywords

battery OCV battery SOC Electric Vehicle (EV) range anxiety

Indexed keywords

Engineering controlled terms: Battery management systems Electric automobiles Electric batteries Electric vehicles Intelligent control Lithium-ion batteries Propulsion Robotics Smart sensors Vehicles

- battery OCV
- Battery SOC
- Electric vehicle batteries
- General publics
- High energy densities
- Performance comparison
- Propulsion system
- Range anxieties

Engineering main heading: Secondary batteries

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