EVOLUTION OF MODULAR FLEXIBLE ELECTRIC VEHICLE PLATFORMS AMONG AUTOMOTIVE INDUSTRY AND BENEFITS IN BATTERY INTEGRATION

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ABSTRACT

The recent increase in EV growth influencing the need for dedicated EV platform development work among vehicle manufacturers. The EV Platform is an aggregation of sheet metal components. Electric Power train components and its architecture heavily influence the integration of battery packs in the car, design & development lead time for new variants and time to market. This article discusses the evaluation of BIW to flexible modular skateboard platform and critical events in EV platforms and how it influences the battery pack integration. It talks about the benefits and challenges in EV platform workstream and why automakers are involved in moving away from conventional ICE converted Platform to native EV platform due to policy decisions and scale benefits on the overall EV Ecosystem.

KEYWORDS: OEM (Original Equipment Manufacturers), Platform Architecture, Modular & Skateboard

Received: Jun 06, 2020; Accepted: Jun 26, 2020; Published: Aug 24, 2020; Paper Id.: IJPERDJUN2020858