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ANALYSIS AND MANAGEMENT OF OVERLOAD PROTECTION OF EV BATTERIES FOR BRINGING FORTH ENVIRONMENT FRIENDLY A method an electric vehicle with a battery pack positioned underneath is equipped with a protective system for the battery pack. The battery pack enclosure panel of the system's bottom battery pack is separated from the lower surface of each battery by a number of deformable cooling conduits, with a thermal insulator positioned in between. It is possible to include a layer of thermally conductive material that is in contact with a lower surface of each cooling conduit and positioned between the thermal insulator and the cooling conduits. When a piece of debris from the road contacts the lower surface of the lower battery pack enclosure panel, the cooling conduits are designed to bend and take the impact energy into account. The conditioning circuit is also set up to negate a substantial percentage of a current linked to an electrical disturbance unrelated to a malfunction.

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