Automatic Flame Suppression System for Four Wheeler Passenger Vehicles

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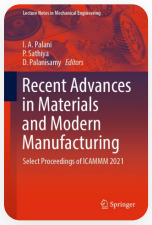

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Abstract

Since the commercialization of automobiles in the 1960s, vehicles have been running on conventional fuels such as gasoline or diesel. Major automobile accidents, especially passenger vehicles that lead to explosions and fatalities are due to frontal impact collisions that cause the breaking of fuel lines. This leads to chemical reactions of the fuel in the fuel lines with the heated atmospheric air. The result is an intense explosion that causes, in most cases, the death of the passengers, if not major injuries. In this work, the Automatic

Flame Suppression System for Four Wheeler Passenger Vehicles reduces the chances of fatalities during such explosions by the high-pressure application of commonly used coolant LN2. The application of LN2 using a sensor-based actuator mechanism will prevent the reaction between fuel and the high-temperature air of the surroundings that triggers the explosion.

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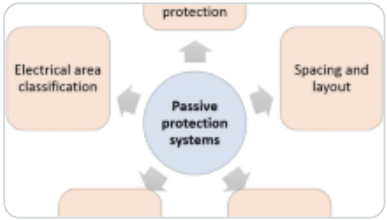

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