

Assignment

Q.1. What is a BMS? Differentiate the types of BMS.

Ans:- A BMS manages a battery pack by protecting the battery from operating outside its safe operating zone by monitoring its state, controlling its environment & balancing the Li-ion cells inside the battery pack.

There are two types of BMS :-

1) Hardware BMS , 2) Software / Smart BMS.

Q.2. What are technical parameters to keep in mind while procuring a BMS for assembling a battery pack?

Ans:- The technical parameters are :-

- (1) Over voltage Cut-off . (2) Under voltage Cut-off .
- (3) Over temperature Cut-off (4) Continuous Current .
- (5) Over Current Detection . (6) State of Charge .
- (7) Depth of Discharge . (8) State of Health .
- (9) State of Available Power .

Q.3. What is the purpose of BMS with communication?
What are the various protocols of communication used in BMS?

Ans:-

The BMS communicates internally with its hardware operating at a cell level or externally with high level hardware.

** It relays the necessary data about the battery parameters to the motor controller to ensure the smooth running of the vehicle.

The various protocols used in BMS are:-

- (1) BACnet (2) Modbus (3) KNX (standard for building control)
- (4) DALI (Digital Addressable Lighting Interface)