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Patent Search

Invention Title	BATTERY MANAGEMENT SYSTEM (BMS) IN ELECTRIC VEHICLE (EV).	
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Inventor		
Name	Address	Country
Dr. Jaipal Saroha (Professor)	Dept. of Instrumentation Kurukshetra University Kurukshetra, Thanesar, Haryana 136119, India.	India
Dr. V M Murthy	Professor Dept. of Instrumentation Kurukshetra University Kurukshetra, Thanesar, Haryana -136119, India.	India
Dr. Ashok Manori (Assistant Professor)	Women Institute of Technology Dehradun Chandan Wadi, Prem Nagar, Sudhowala, Uttarakhand 248007, India.	India
Applicant		
Name	Address	Country
Dr. Jaipal Saroha (Professor)	Dept. of Instrumentation Kurukshetra University Kurukshetra, Thanesar, Haryana 136119, India.	India
Dr. V M Murthy	Professor Dept. of Instrumentation Kurukshetra University Kurukshetra, Thanesar, Haryana -136119, India.	India
Dr. Ashok Manori (Assistant Professor)	Women Institute of Technology Dehradun Chandan Wadi, Prem Nagar, Sudhowala, Uttarakhand 248007, India.	India

Abstract:

The active cell balancing is one of the most critical part of Battery Management System (BMS) in Electric Vehicle (EV). Active cell balancing increases the efficiency by reduced heat dissipation in passive elements while maintaining equal charge distribution in each series connected cell of Battery / Pack. In a system many cell balancer circuit can work independently or synchronously.

Complete Specification

Claims:WE CLAIMS

1. The active cell balancing is one of the most critical part of Battery Management System (BMS) in Electric Vehicle (EV). Active cell balancing increases the efficiency by reduced heat dissipation in passive elements while maintaining equal charge distribution in each series connected cell of Battery / Pack. In a system many cell balancer circuit can work independently or synchronously.
2. According to claim1# the invention is to an Each cell need to be charged equally.
3. According to claim1,2# the invention is to a During balancing extra charge is transferred from strong (overcharged) cell to weak cell (under charged).
4. According to claim1,2,3# the invention is to a NTC-PTC provides natural charging and discharging control profile during balancing.
5. According to claim1,2,4# the invention is to a NTC-PTC combinations provide robust performance & eliminate the need of additional current sensor.
6. According to claim1,2,3# the invention is to a Paralleling of switches or NTC-PTC provide easy way to extended rating.
7. According to claim1,2,5# the invention is to a 'n' batteries are connected in conjugation with ultra-capacitor (UC) with different combinational switch
8. According to claim1,2,4# the invention is to a In any case, highly charged battery B-n, charges the UC with the switching of Sn, Sn-1 Q3 and Q6 Conduction with Further UC charge the least charge battery B2 with the switching combination of S3, S2, Q2 and Q5 with NTC. Hence keep all the batteries equally charged.

FIELD OF THE INVENTION

View Application Status

Chairman,
 Deptt.of Instrumentation
 Kurukshetra University,
 KURUKSHETRA-136119.