



**WE CARE FOR  
YOUR POWER PLANT.**  
.....  
**MONITOR YOUR  
BATTERIES  
24X7**

- For all types of Lead-Acid & Ni-Cd - 48V/110V/220V DC
- Automatic real-time monitoring of all cells
- Smooth HMI with touch-screen
- With RS 485/ RS 232 or TCP/IP protocol

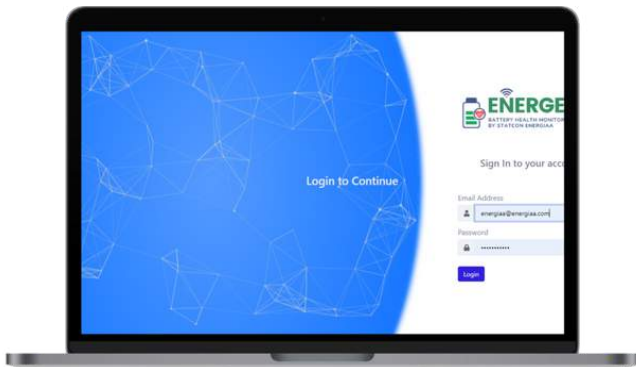


ENERGENIE, Statcon Energiaa's Battery Monitoring System (BMS), is based on the latest technology of microcontroller boards which have inbuilt computer system capability to monitor the health of the battery bank. ENERGENIE also monitors low, high, and unbalanced voltages and provides the potential free contact for remote monitoring and control of the system.

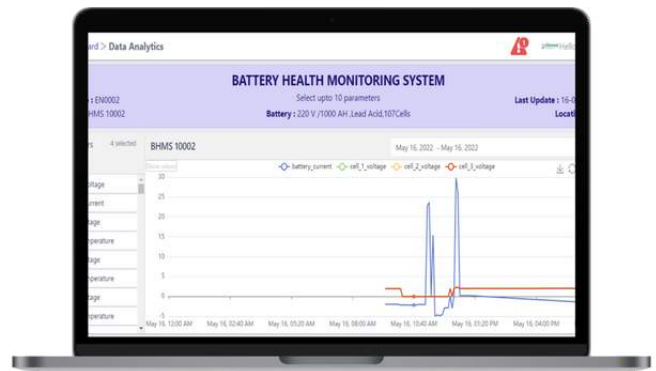


ENERGENIE continually monitors each cell in your battery bank and its wired connection to the BMS to analyse cell voltage and temperature. If any cell in the battery bank meets the weak cell criterion, it is identified, and a visual warning is generated for the user to take action. A similar warning is issued if the battery bank is under/ over the appropriate voltage. The user can also view the list of active faults on ENERGENIE's graphical LCD.

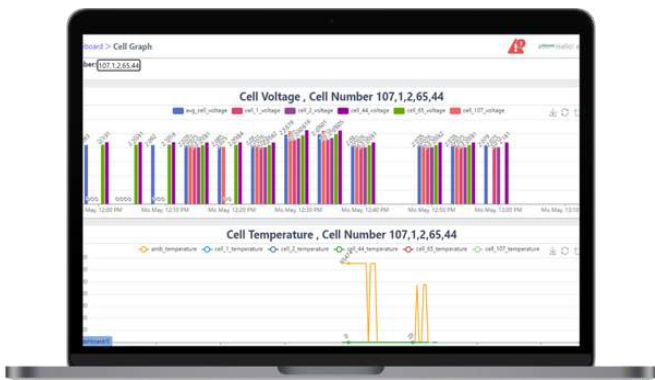
## Snapshots of ENERGENIE's dashboard



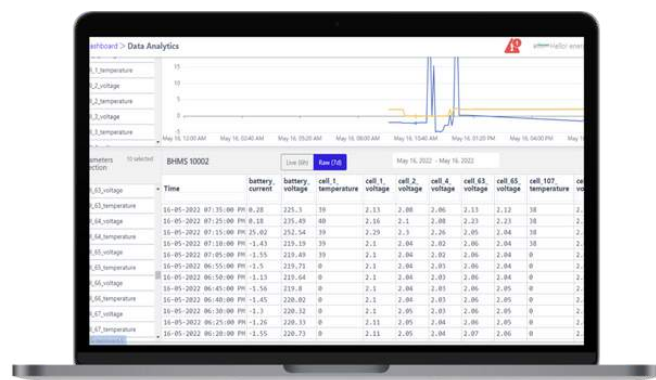
Login Page



Data Analytics



Data Analytics



Data Analytics

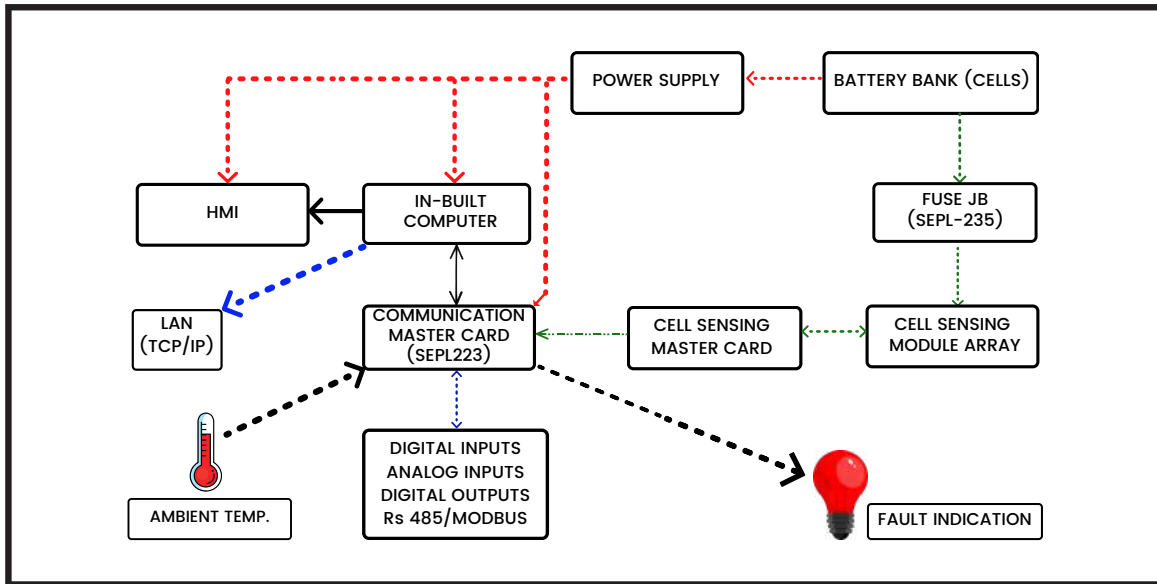
## WHAT MAKES ENERGENIE SPECIAL?



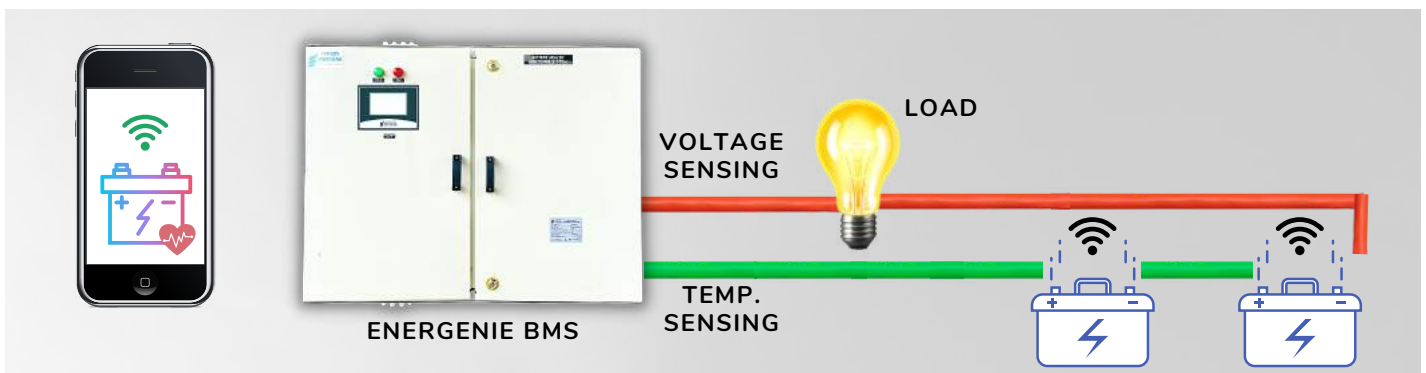
- It measures individual cell voltage with 99.5% accuracy
- Detects if the battery bank or a cell is in under-voltage or over-voltage condition
- In-built system computer, which is also a local storage facility
- Easy servicing and predictive maintenance of cells
- No need to install any GUI programs as historical and live data can be viewed by users online
- No additional AC power input is required for its operation (power requirement being very small, is drawn from the battery bank)
- Contains an LCD touchscreen display showing different parameters like cell voltage, temperature, total bank voltage, charging-discharging current, and fault alarm
- Has different fault/ alarm escalation levels so that the user can take recommended action based on the severity of the event
- Has 5 digital inputs, 2 analog inputs, and 1 digital output for viewing various indications
- LCD shows the battery charging and discharging status, as well as the average cell voltage
- LCD shows the ambient temperature of the battery room (2-60 Deg. Celsius)
- Optional Modbus output. Can enable Remote Communication with a PC using an RS 485 link through Modbus Poll
- Five general-purpose digital inputs for monitoring non-battery parameters like door-open, exhaust fans not running, air-conditioning not working, and so on
- Wall-mountable



## SO HOW DOES ENERGENIE WORK?



There is no need for additional wiring for remote monitoring. ENERGENIE can be linked with PCs and laptops using an existing LAN cable network. It can be monitored via the cloud from anywhere in the world. Logging of cell/ battery parameters (voltage, current, temperature) and alarm conditions is possible with a date/ time stamp on a remote PC. Logged data can be exported in MS Excel format. Password-protected login is enabled so that only authorised personnel can access the GUI to check the status. If a problem arises in the BMS, the malfunctioning module can be readily replaced with a spare module, lowering service costs.



By default, through the BMS system, we can monitor cell temperature (One Pilot Cell) at two locations. If a user needs to monitor cell temperature at more than two locations, they can simply connect the external temperature probe to the system.

By looking at comparative Bar and Line charts of individual cell voltage with its average cell voltage and its individual cell temperature with its ambient temperature, the trend of a particular cell and its abnormality (if any) can be identified.