Eatron AI-Driven BMS Solution

Infineon Associated Partner

Intelligent algorithms for optimized performance and predictive capabilities



Eatron Technologies offers advanced AI-powered Battery Management Systems (BMS) for low-voltage and high-voltage applications, redefining battery optimization through intelligent software solutions tailored for automotive, industrial, and consumer sectors. Combining artificial intelligence with physics-based modeling, Eatron precisely estimates battery metrics like State of Charge (SoC) and State of Health (SoH), enhancing battery performance, extending lifespan, and optimizing operational efficiency.

Eatron's intelligent BMS delivers the following advanced capabilities to maximize battery health, efficiency, and reliability:

- Precise, real-time estimation of battery health and performance metrics
- Integration capability for both edge (device-level) and cloud-based systems
- Predictive diagnostics for proactive battery health management
- Accurate forecasting of Remaining Useful Lifetime (RUL)
- Advanced anomaly detection algorithms for early identification of potential failures, including lithium plating detection
- Cloud connectivity enabling over-the-air (OTA) updates for continuous enhancements

Eatron's solutions significantly enhance safety by proactively identifying cell deterioration and predicting thermal runaway events, reducing costly recalls and maintenance interventions. Ideal for electric vehicles, off-highway

Enabled by

OptiMOS™ 5 80V/100V
A family of high-performance, low-voltage N-channel power MOSFETs, designed to deliver exceptional efficiency, reliability, and thermal performance in a wide range of power management applications.

32-bit PSOC™ Arm® Cortex® Microcontroller
A family of highly integrated, programmable system-on-chip (PSoC) devices that combine a high-performance ARM Cortex-M processor with a wide range of peripherals, memory, and analog and digital interfaces, enabling flexible and efficient design of a variety of applications.

Small signal/small power MOSFET
A family of low-power, low-voltage N-channel and P-channel MOSFETs designed for a wide range of applications, including signal switching, voltage regulation, and low-power motor control.

32-bit AURIX™ TriCore™ MCUs - TC3x and TC4x
Supporting a wide variety of automotive use cases, in e.g. domain or zone architectures and for conventional powertrain or xEV applications. AURIX™ offers supreme embedded safety and security features and enables affordable AI applications.

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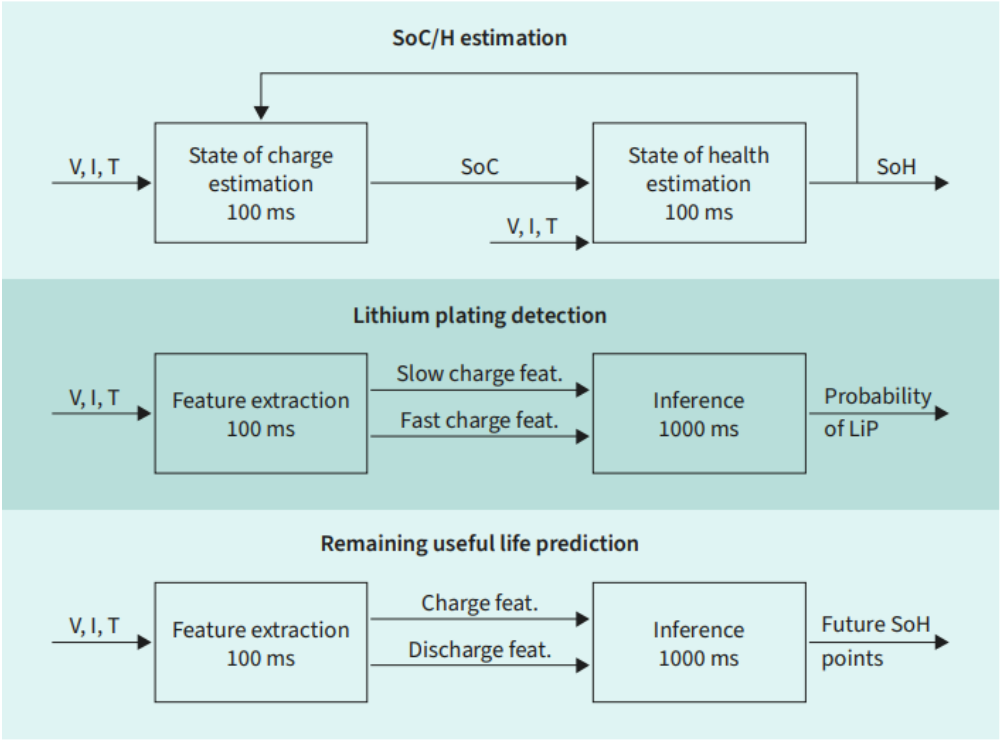
machinery, robotics, micro mobility, energy storage, portable electronics, and smart home systems, Eatron's intelligent BMS ensures safer, smarter, and greener battery operations across various industries.

Curious to learn more? Explore the details in the Eatron: Developer Community Blog & Infineon and Eatron Whitepaper.

Target applications

Robotics | Power tools | Energy storage | Consumer | Smart home | Smart speaker | Server | Automotive | Smart mobility

ALGORITHM DECOMPOSITIONS BASED ON THE OPERATION FREQUENCY



Discover more

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