

Battery Expert James Post Designed Early Warning Safety System for Electric Vehicles During Transport or Non-operating

With this Early Warning Safety system, integrated or as a standalone unit, disasters such as the Fremantle Highway Burning Car Carrier can be largely prevented.

HOOFDDORP, THE NETHERLANDS, August 3, 2023 /EINPresswire.com/ -- EV Transport fires can

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EV Transport fires can be largely prevented by adding Idle Battery Safety Warnings. The vast majority of EV battery fires emerge slowly - early recognition will allow the placement of fire blankets."

> James Post - battery expert/consultant

be largely prevented by adding an Early Warning Safety System, developed by Dutch battery expert James Post

During a joint lecture at the Battery Safety Conference in Anaheim in 2013, James Post introduced battery safety monitoring by the battery management system (BMS), together with CALCE, a major battery lab at the University of Maryland, both for active and idle (inactive/nonoperating, e.g. transport, standstill) use. Ten years later, Battery Safety Monitoring is now the industry standard; however only during active use. Apparently, the risk was not deemed high enough for idle use... The Fremantle Highway Burning Car Carrier Disaster serves as a tragic

wake-up call that this risk is worth a few dollars cost more.

This Early Warning Safety System allows the time to apply a fire blanket, which is a proven way to smother even an EV battery fire. More information is available on request: james.post@ecopro.technology

The most structural, but also most time-consuming solution, can be achieved by integrating the Early Warning Safety System into the EV Battery Management Systems (BMS) and implementation assistance is available on a consultancy basis to all EV (battery/BMS) manufacturers. The reporting will easily take place on a uniform APP-based system that is the same for every EV brand. The integrated version will also make use of lighting and audible warnings of the electric vehicle. In high volumes, the typical additional cost per EV will be 40....70 US\$.

The short-term solution is a stand-alone Early Warning Safety System that monitors battery temperature independent from the EV and it's brand. This standalone system will report early warnings via the same non-consensus standard APP, in addition to optical and audible warnings on the EV. This standalone Early Warning Safety System does not use any resources from the EV and can be removed after transport and re-used. While conceptually designed in 2013 it is not in production yet - as there was no demand... The earliest availability is by the end of November and initial pricing will be 950 US\$.

In conclusion, until Early Warning Safety Systems are integrated into the EV BMSs, standalone Early Warning Safety Systems will provide adequate protection during transport and yield valuable time to apply fire blankets and other precautions.



Battery Expert James Post has both a long-term and a short-term remedy for safe EV-transport

Background

During the 2012 Battery Safety Conference in Las

Vegas, Dutch battery expert James Post led a forum discussion on his thesis that the Safety Monitoring of Lithium batteries should be performed by the Battery Management System. Although this approach was considered novel at the time, it has now become commonplace in the electric vehicle (EV) industry, albeit only during operation. Among the conference attendees was a scientist from CALCE (Centre for Advanced Life Cycle Engineering), a renowned battery and electronics laboratory at the University of Maryland, who echoed James Post's statement.

The collaboration between Prof. Michael Pecht and James on battery safety began when they met shortly after a visit by Prof. Pecht, the Director of CALCE (Center for Advanced Life Cycle Engineering), to James. Recognizing the importance of battery safety, they decided to join forces and continue their cooperation, which still endures today.

Their joint efforts led them to present their findings on Battery Safety Monitoring at the Battery Safety Conference in 2013, held in Anaheim. During this joint lecture, they also highlighted the significance of Idle battery safety monitoring (e,g, during transport). However, the industry did not immediately embrace this aspect, possibly considering it less critical compared to safety during active battery operation: charging and discharging. James' other proposal to let the EV user choose the charge percentage (which also increases battery life) was broadly followed, albeit many years later.

Nevertheless, the proposed enhanced safety monitoring system developed over a decade ago, serves as the foundation for the solutions being proposed today. This indicates that their initial insights and recommendations regarding battery safety monitoring have stood the test of time and continue to have relevance and applicability in also addressing the safety concerns of idle lithium batteries.

E-bike battery fires: another major problem

Unlike EV's, electric bicycles are not safety-monitored during active use - and also not during inactive use. To add insult to injury, low-end Chinese e-bike batteries also save (typ. \$ 0.60) on the protection against transient voltages (that can damage the BMS).

Last April, James introduced a solution for the increasing number of e-bike battery fires/explosions. <u>His innovative solution was published in the leading trade magazine</u>: Bike Europe, but the mainstream media seemed to be not triggered by his press release: <u>https://www.einpresswire.com/article/637222860/burning-exploding-e-bike-batteries-can-be-largely-prevented-by-design-changes-of-the-battery-management-systems-bmss</u>

13 e-bike battery-caused deaths in New York City in 6 months and 6,500 security cameraregistered battery fires/explosions in the same time frame in China have garnered significant attention and are considered significant news. However, it appears that the remedy to address these concerns is not perceived as sufficiently impactful/dramatic: an editor for a major NY media outlet, who proposed an article hereto, was denied a budget to write an article. Media professionals, please take a second look and expose the irresponsible Chinese vendors! Extensive additional information is available from james.post@ecopro.technology

About James Post

James Post is a highly experienced individual in the field of high-tech electronics. With a career spanning since 1975, he has primarily held management positions. James has gained recognition for his expertise in designing electronic solutions to address everyday problems.

One of his notable involvements is with ECOpro Technology BV, a Dutch company that focuses on merging ecological principles with professional design. As the technology driver, James plays a critical role in ensuring that the company develops reliable products with extended lifetimes.

From 2011, he specialized in lithium batteries and associated electronics and provides battery design consultancy.

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