

ViriCiti and Fraunhofer announce collaboration to prolong battery life of electric buses and trucks

The battery life of electric vehicles still presents a financial challenge for the electrification of the transport sector. That is why *the Fraunhofer institute for Transportation and Infrastructure IVI*, expert in the field of Lithium-ion batteries, and real-time electric vehicle data specialist *ViriCiti*, have started a unique collaboration. This collaboration aims to prolong battery life and lower total cost of ownership of electric buses and trucks. Over the past months, they researched how battery life can be extended by altering specific aspects of operations. The outcome is a battery stress report that gives operation-specific advice on how to prolong the battery life. It is now available for ViriCiti's international customers.

Why are battery insights so important?

Electric vehicles are more expensive than diesel vehicles, and their batteries are the most expensive part. In operation however, this is compensated by the fact that electric kilometers are much cheaper than diesel kilometers. By driving more electric kilometers, the total cost of ownership of electric vehicles will ultimately be lower than those of diesel vehicles. It is therefore important that the vehicle stays healthy and the battery doesn't need replacement before the end of its promised lifespan.

Improving battery performance and lowering TCO

To prevent early degradation, the report focuses on power, temperature, Depth-of-Discharge (DOD) and State of Charge (SOC). It also provides a detailed analysis of the battery usage over the evaluated period of time as well as what factors have a negative impact on the life cycle. It will tell you how adapting your charging and operational regime, e.g. interchanging buses on steep roads, will reduce battery stress and increases health. By maximizing battery life, electric operations become cheaper and electric buses and trucks become competitive with diesel vehicles.

ViriCiti & Fraunhofer IVI

Based in Germany, Fraunhofer is Europe's largest application-oriented research organization with 72 institutes and research units. The Fraunhofer IVI in Dresden focuses on the state of health of Li-Ion batteries, primarily in the field of traction batteries of electric vehicles. ViriCiti is an IT company that supports electric bus and truck operators in optimizing their operations through data-insights. By analyzing and storing large amounts of vehicle data on millisecond level, ViriCiti provides input for detailed battery evaluations. ViriCiti's company headquarters is based in Amsterdam but has recently added two locations in the United States.

ABOUT VIRICITI

ViriCiti, founded in 2012, offers a cloud-based monitoring system to improve electric vehicle operations. ViriCiti believes that online energy management is the missing link to full adoption of electric city buses and trucks. By monitoring and analyzing data from electric vehicles up to millisecond level, real-time information on the use, condition and performance of the vehicle can be provided. With these insights, electric city buses and trucks run further, more reliable and at lower cost.



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