

MHP Digital Twin Solution For EV Batteries

Leveraging multi-layer scalable and continuously updateable digital twins in the AWS Cloud

The modeling is done by combining a complex physic-based and a data-driven AI model to reflect each batterie's state in real-time. The modelling process further allows integrating existing, well-established in-house numerical models for EV battery condition monitoring to be transferred into a digital twin instance and be optimized with.


A modular digital twin environment on the AWS Cloud

This enables the customer to successively build more and more accurate and capable virtual representations of each individual battery.


Services

- Knowledge and implementation of the whole process from modeling to deploying to the cloud and utilizing and optimizing existing models with AI
- Deploying in the customers own AWS Account as a service
- Building a modular environment for the AWS Cloud Architecture Components and the Digital Twin, to grant a multi-layer-scalability
- Inclusion of existing self-made, open source or commercial models to extend the digital twin's capabilities


Facilitating Digital Twin Models of entire EVs or EV Component Clusters

 To successively build more and more accurate and capable virtual representation of each individual battery

 Facilitating modeling for individual IoT devices on a shopfloor

 Various models for a number of different use cases

 Can be scaled with more kinds of individual IoT devices

 Sidecar setup on the AWS Cloud