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Toyota Technical Development Corporation (TTDC)

A&D Company, Limited

Commercial Launch of EV-Sim HELIOS Edition: a Highly Accurate Real-Time Simulator for Electrified Vehicle Development

Toyota Technical Development Corporation (TTDC, Head Office: Toyota, Aichi, President: Yoshiyuki Kagawa) has developed a highly accurate real-time simulator called EV-Sim HELIOS Edition in partnership with A&D Company, Limited (Head Office: Toshima-ku, Tokyo, President & CEO: Yasunobu Morishima) to help accelerate development work by companies aiming to realize carbon neutrality through electrified vehicles.

Despite increasing pressure to shorten development lead-times as the rapid electrification of vehicles creates fiercer competition between automakers, the controls that are key for enhancing the product appeal of electrified vehicles are growing increasingly complex and sophisticated, with many requiring verification by actual vehicle evaluations. **EV-Sim** uses **highly accurate and realistic models (motors and boost converters)** to perform real-time simulations of electrified vehicles, enabling evaluations that conventionally required an actual vehicle to be carried out on the desktop. These real-time simulations can greatly shorten development lead-times and **help raise development efficiency**.

EV-Sim HELIOS Edition will be demonstrated for the first time at the **Automotive Engineering Exposition 2022** to be held at PACIFICO Yokohama from May 25 to 27. Come to the TTDC booth (No. 225) to see the EV-Sim HELIOS Edition real-time simulator in action!



* A FPGA (field programmable gate array) is the name of a freely programmable electronic device in a digital circuit.

Inquiries about EV-Sim:

EV-Sim support and inquiry desk, Simulation Business Div.

Email: ev-sim_support@ml.toyota-td.jp