Ansys Debuts ConceptEV to Boost Electric Vehicle Drive Range

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ConceptEV optimizes the development of electric vehicle powertrains for improved driving range and battery charge times

/ Key Highlights

- Ansys ConceptEV ™, a software-as-a-service (SaaS) solution tailor-made for the automotive concept design stage, delivers simultaneous optimization of electric vehicle (EV) powertrain architectures and components including the battery, inverter, motor, and transmission
- The solution complements existing simulation workflows, empowering system and component design engineering teams to collaborate on a shared system model connected to requirements

PITTSBURGH, June 20, 2024 /PRNewswire/ -- Ansys (NASDAQ: ANSS) today announced the availability of a new SaaS cloud-native offering, Ansys ConceptEV. The solution enables component and system engineers to work together on EV powertrain concept designs through a model-based approach — facilitating early design decisions for improved EV driving range and battery charge times, lower development costs, and faster time-to-market.

EV powertrains are complex systems comprised of core functional components including the battery, inverter, motor, and transmission. To develop the most efficient powertrain, the components must be designed and optimized as part of the system, not separately. A system-level design approach is crucial to increasing the driving range and efficiency of EVs while decreasing the cost.

ConceptEV is a first-of-its-kind, accessible solution capable of linking component designs to system-level requirements. Specification and component design changes are easily implemented and traceable, empowering users to rapidly evaluate and quantify system trade-offs for the optimal powertrain design. The model-based approach facilitates rapid analysis of the complete system against requirements, reducing errors, saving time and costs, and informing smarter decisions earlier in the development process.

"Ansys ConceptEV promises to be a critical advancement for the electric powertrain industry," said John Reeve, technical director, FluxSys Ltd. "Focusing on optimizing the complete powertrain rather than individual sub-systems will increase our productivity and accelerate innovation. ConceptEV is approachable, collaborative, scalable, and will help us meet the growing demand for performant EV powertrain systems."

"ConceptEV is flipping the script on traditional EV powertrain workflows and enabling customers to pursue a more robust, data-driven result," said Shane Emswiler, senior vice president of products at Ansys. "The solution brings together cross-functional teams in an open environment that encourages collaboration and knowledge sharing to foster innovation. The powertrain is the heart of a vehicle's performance, so having the right tools to optimize its design to make it lighter, more durable, and more cost-effective is critical."

/ About Ansys

Our Mission: Powering Innovation that Drives Human Advancement™

When visionary companies need to know how their world-changing ideas will perform, they close the gap between design and reality with Ansys simulation. For more than 50 years, Ansys software has enabled innovators across industries to push boundaries by using the predictive power of simulation. From sustainable transportation to advanced semiconductors, from satellite systems to life-saving medical devices, the next great leaps in human advancement will be powered by Ansys.

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/ Contacts

Media	Mary Kate Joyce 724.820.4368 marykate.joyce@ansys.com
Investors	Kelsey DeBriyn 724.820.3927 kelsey.debriyn@ansys.com

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