Emulation: A Key Element In Speeding Up Product Development And Validation

SPEAKERS



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About Us:

D&V designs and manufactures state of the art Performance, Endurance and Production testing systems for the global automotive industry. These are complete systems for the advanced testing of Electric and Hybrid Vehicle motors, inverters, batteries and E-axles. For the ISG/BSG industry, D&V has proven testing systems already developed and installed. D&V is the #1 supplier of starter and alternator testing systems.

SUMMARY

As the proliferation of electrification and xEV increases, and we see announcements like the one GM made recently, one thought stands out - how do we accelerate and enhance testing of the components and systems to address the variety and velocity of development.

ABSTRACT

Emulation has become a key tool over the recent years to help speed up development and time to market. Emulation, as people know, enables the representation of the real-time behavior of a component. For example, a motor emulator will enable the user to test an inverter without the need for a physical motor (and a dyno); a battery emulator will represent the behavior of a battery (cell/module/pack) which will enable the development of battery management systems, charging systems, or to study electric powertrain systems.

While emulation is not new, in recent years, it has been increasingly used during the development of eMotive systems. Over the past 5-10 years, use of motor and battery emulators has gone from the domain of research into mainstream product development. This presentation will share some thoughts and observations on emulation and the use of emulation tools, and offer some points for discussion on future directions, challenges, and opportunities. It is hoped that this will help generate questions and ideas and discussions within the audience and others.



