

IEEE Southeastern Michigan Presents: Dr Yue-Yun Wang, PhD *Industry Outlook on Battery Platform Development for EVs*



This talk explores the industry outlook on battery platform development for electric vehicles (EVs). It begins by reviewing key aspects of battery platforms, including cell chemistry, material selection, cell form factor design, and battery pack integration strategies. Industry trends over the next 5~7 years are analyzed, focusing on advancements and applications in these areas.

Three major battery pack integration approaches—cell-to-module, cell-to-pack, and advanced configurations like cell-to-chassis and cell-to-body designs—are discussed. The potential shift toward cell-to-pack integration as the mainstream approach is examined, highlighting its advantages over traditional cell-to-module designs. Additionally, the benefits of different cell form factors—prismatic, pouch, and cylindrical cells—are reviewed in terms of performance, cost, and safety.

Speaker Bio:

Dr. Yue-Yun Wang is a consultant specializing in vehicle propulsion control systems and energy management. He earned his Ph.D. from Shanghai Jiao Tong University, China, and spent several years in research and teaching at academic institutions before working at the industry. In 1995, Dr. Wang joined Cummins Engine Company as a Technical Specialist, and in 2005, he moved to General Motors R&D. He authored over 100 publications and holds 140 U.S. patents, with 50 of them forming the core emission control and battery management technologies in product applications. Dr. Wang has received numerous awards, including 6 GM Boss Kettering Awards, the 2022 IEEE Control Systems Technology Award, and the 2021 SAE Environmental Excellence in Transportation Award. He is a Fellow of SAE and has served the Associate Editors for IEEE Transactions on Vehicular Technology, IEEE Transactions on Control Systems Technology, as well as Vice Chair of the Automotive Controls Technical Committee of the IEEE Control Systems Society.

Quick Summary

- **When:**

Date: April 18th, 2025

Time: 04:00 – 5:00 PM
(EST/EDT)

- **Where:**

Online via Webex

Audience: OPEN to ALL

*Sponsored by
IEEE Southeastern
Michigan Section,
VTS Chapter
&
Control Systems
Chapter*

***Pre-Registration Required!**

<https://events.vtools.ieee.org/m/477542>



IEEE Southeastern Michigan Section