

## "Clean, Efficient and Sustainable Diesel Powertrain Technology"

## Presented by Pingen Chen, Ph.D.

**Abstract** The application of modern Diesel engines in automotive industry has been widely recognized for reasons of their distinguished performances on fuel economy, durability, and reliability. Biodiesel has emerged as the leading renewable fuel for Diesel applications in the search for energy sustainability. However, NOx and particulate matters (PM) emissions have been the main concerns in the evolution of Diesel engines as stringent emission standards have been legislated against Diesel engine emissions worldwide. In addition, as the Greenhouse gas emissions are receiving growing concerns due to global warming issues, the demand of fuel economy improvement is increasing significantly. In this talk, we will discuss broad research topics in Diesel powertrain control for improving the overall fuel economy and emission performances of Diesel-powered ground vehicles, Diesel engine combustion with biodiesel fuel and hybrid powertrain control, as potential approaches for improving the energy sustainability, will also be discussed.

**About the Speaker** Pingen Chen earned his bachelor's degree in automotive engineering in 2008 from Jilin University. He earned his master's in mechanical engineering from West Virginia University in 2010 and went on to Ohio State University. He worked as a Control Diagnostic Research Engineer at Cummins Technical Center for approximately a year and a half before coming to Tech. He has coauthored more than 20 peer-reviewed publications thus far. His primary research areas include: hybrid powertrain, internal combustion engines, alternative and renewable fuels, and intelligent transportation systems.

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Time: 4:30-5:30

**Location: Prescott 225**