The Engine Research Center (ERC) is a major research and educational institution investigating the fundamentals and applications of internal combustion engines with a unique combination of modeling and experimental capabilities. The Engine Research Center has a 60 year history of research into engine physics which has translated into fundamental understanding of engine combustion and emissions.

The Engine Research Center is devoted to fundamental research on spark ignition and diesel engines and has been a leader in Low Temperature Combustion research. The ERC is one of several such programs at the University of Wisconsin–Madison’s Department of Mechanical Engineering, in which faculty members work together to secure outside funds for research projects, advise graduate students, report on their work to the profession, and develop courses and textbooks based on their activities. The ERC’s projects involve fluid mechanics, heat transfer, combustion, sprays, emissions and health effects, lubrication, and powertrain systems.

ENGINE RESEARCH CENTER SYMPOSIUM
2025 Engine Emissions and Fuel Economy
June 3–4, 2015
University of Wisconsin
Madison, Wisconsin

Engineering Research Building
1500 Engineering Drive
Madison, WI 53706

Phone: 608-263-2735
Fax: 608-263-9870
E-mail: symposium@erc.wisc.edu
SPEAKERS AND TOPICS

June 3, Morning Session
Light Duty Engines

Chris Atkinson – Keynote – ARPA-E
Powertrain Innovations for Future Vehicles - ARPA-E Perspective

Ronald A. Reese – Fiat-Chrysler
Progress (and Challenges) along the path to 2025

Michael O. Harpster – General Motors
Future Powertrain Direction

Mitsuo Hitomi – Mazda
Mazda’s Approach – Perspective of Environmental Improvement

Takeshi Hashizume – Toyota
Toyota’s High Efficiency Diesel Combustion Concept

Panel Discussion – Moderator - Jaal Ghandhi
Research Needs Beyond 2025

June 3, Afternoon Session
Medium and Heavy Duty Engines

Lou Balmer-Millar – Keynote – Caterpillar Inc.
Off-Road Mobile Machinery Fuel Efficiency - Systems Perspective

Don Stanton – Cummins Inc.
Engine System Technologies to Meet Future Greenhouse Gas Regulations in Commercial Vehicle Applications

Carl Hergart – PACCAR
Heavy Duty Powertrain Integration: Trends and Opportunities

Richard E. Winsor – John Deere
Efficiency and Emissions for Future Off-road Engines

Eric Kurtz – Ford Motor Company
Emissions and GHG from a Full-Line Manufacturer’s Perspective

Panel Discussion – Moderator - Chris Rutland
Research Needs Beyond 2025

June 4, Morning Session
Fuels and Emissions

Paul Miles – Keynote – Sandia National Lab
Fuel/Engine Interactions: Potential for Emissions and Efficiency Benefits

Timothy Johnson – Corning Inc.
Engine Efficiency and Emissions Trends

Dave Cleary – Saudi Aramco
Transportation Fuels and Engine Technology Opportunities

Houshun Zhang – EPA Assessment & Standards Div
EPA/NHTSA Update on Phase II GHG and Fuel Efficiency Rules for Medium and Heavy Duty Vehicle

Rolf Reitz – University of Wisconsin-Madison
ERC Advanced Fueling Strategies for High Efficiency Low Emission Engines

Panel Discussion – Moderator - David Rothamer
Research Needs Beyond 2025

ABOUT THE SYMPOSIUM

2015 Symposium Follows
Eight Successful Previous Symposia

Every two years the University of Wisconsin Engine Research Center holds a research symposium on a topic of current relevance to the internal combustion engine R&D community. Previous symposia topics:

2013 – Engine Fuel Efficiency and Advanced Combustion
2011 – Future Engines and Their Fuels
2009 – Reducing Fuel Consumption
2007 – Future Fuels for IC Engines
2005 – Low Emission Technology for Future IC Engines
2003 – Developing the Virtual Engine
1999 – Engine Research: The Next 50 Years

This year’s Symposium brings together leading researchers and executives from worldwide industry, government labs, and academia to focus on technologies the automotive and engine industries will need to implement to meet future vehicle efficiency targets with low emissions. The symposium provides opportunities for face-to-face technical exchange and dialogue between professionals associated with technology impacting fuel economy and emissions, including engine downsizing, pressure boosting, intelligent combustion, thermal efficiency improvements, fuel developments, variable valve trains, and direct injection. Conference attendees will also be able to visit the ERC laboratories and discuss student research projects.

More information and the detailed agenda are available at: www.erc.wisc.edu/symposium2015.php

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Registration
You may register online at: www.erc.wisc.edu/symposium2015
Or call Angela Chopp at: 608.265.9585
The symposium fee of $345 ($395 after May 4th) will include breakfasts, lunches, and an evening banquet on June 3rd. A bus will be available for transportation to and from the banquet and parking is available in lot 17 next to the ERC. PDF files of most presentations will be provided after the symposium has concluded.

Accommodations
The Madison Concourse Hotel and Governor’s Club
One West Dayton Street, Madison, Wisconsin
To reserve a room ($125/night), call 800-356-8203 or 608-257-6000. Indicate that you will be attending the ERC Symposium (ERC2015). Room requests made after May 4 will be subject to availability.

The Best Western Inn Towner,
2424 University Ave., Madison, Wisconsin
To reserve a room ($119/night, includes parking and breakfast), call 800-258-8321 or 608-233-8778. Indicate that you will be attending the ERC Symposium (ERC2015). Room requests made after May 11 will be subject to availability.

Registration and ACCOMMODATIONS