

Center for Advanced  
Automotive Technology

C · A · A · T

# 2016 Summer Professional Development Course Electric-Drive Vehicles Technology

## Benefits of Attending

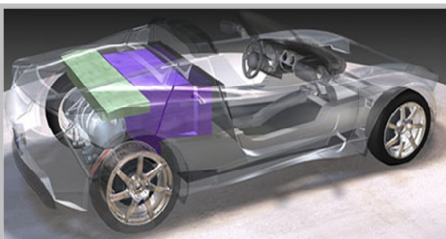
By attending this workshop, you will be able to:

- Explore the state-of-the-art advanced automotive technology including electric-drive vehicles, connected vehicles, energy storage systems, light weighting materials;
- Receive course materials and a certificate of completion certification accredited by WSU; and
- Discuss the emerging technologies, challenges, and development closely with professionals.

## Who Should Attend

The workshop is designed to provide fundamentals of electric-drive vehicle powertrain configurations, electric propulsion components, energy storage systems, and light weighting materials to

- 4-year college/university engineering or technology faculty;
- Community college instructors;
- High school science or technology teachers; and
- Automotive industry professionals.



## Workshop Content

### Topic 1: Hybrid, Electric, and Connected Vehicle Technology

- Roadmap of vehicle electrifications
- Overview of vehicle road load
- Hybrid powertrains and components
- Connected vehicles and future trends

### Topic 2: Advanced Battery Systems for Hybrid and Electric Vehicles

- Types of On-board Energy Storage
- Fundamentals of electrochemistry
- Battery cell characteristics, monitoring, and balancing
- Battery pack design, control, and management

### Topic 3: Power Electronics and Traction Motor for Electric-drive Vehicles

- Fundamentals of power electronics and traction motor
- Power switch analysis and controls of power electronics
- Analyze and design of traction motor

### Topic 4: Light Weighting Materials for Automotive

- Weight effect on fuel consumption
- Design and Implementation of light weighting materials
- Multi-material enabling and joining processes



## Time

9:00 a.m. - 4:00 p.m.  
July 21 & 22, 2016

## Location

Vehicle Technology Training Center  
Automotive Technology  
Erie Community College  
5885 Big Tree Road  
Orchard Park, NY 14127

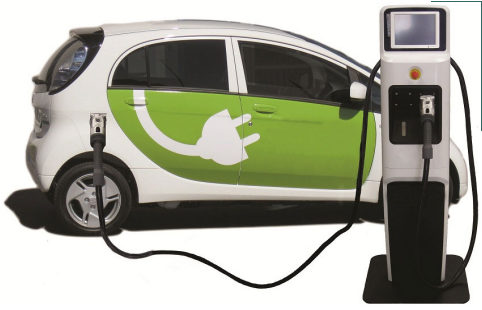
## Stipend

There is no registration fee for attending this workshop. Each participant will receive a **\$200** stipend upon completion of the workshop. Limited lodging support also available upon request. Please include a travel proposal with your application if needed.

## To Register

Submit the application form on the second page of the flyer by Friday, July 15, 2016 to:  
[FZ6043@wayne.edu](mailto:FZ6043@wayne.edu)  
Seats are limited, please apply early. If you have additional questions, please contact Chelsie Dundas at 313-577-0800 or above email.





# Application Form

## 2016 Professional Development Course Electric-Drive Vehicle Technology

PLEASE READ THE INFORMATION BELOW, TYPE OR CAREFULLY PRINT

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

Institution / Company Name \_\_\_\_\_

Position / Title \_\_\_\_\_

**Major Responsibility / Purpose**

( Please specifically describe the program and courses you are teaching, and your plan to use the workshop materials for your program)

---

---

---

---

---

---

---

---

---

Street Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

**S.S. Number needs to be provided by all attendees for stipend purpose. A W-9 form will be sent by us requesting this information once your application has been accepted.**

**PLEASE DO NOT ENCLOSE YOUR S.S.N. ON THIS FORM.**

Submit your application to [FZ6043@wayne.edu](mailto:FZ6043@wayne.edu) or fax to (313)-577-1781 by **July 15, 2016**. For additional questions, please contact Chelsie Dundas at 313-577-0800.

