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, fuel cell vehicles, connected and autonomous vehicles, energy storage systems, power electronics and traction motors;
- Receive course materials and a certificate of completion accreditation 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, power electronics and electric machines to
- Community college instructors / administrators;
- 4-year college/university engineering or technology faculty;
- High school science or technology teachers; and
- Automotive industry professionals.

Workshop Content

Topic 1: Overview of HEV/PHEV/EV/FCV
- Roadmap of vehicle electrifications
- Overview of vehicle road load
- Hybrid powertrains and components
- Fuel-cell systems for vehicle accessories
- Fuel-cell powered systems for vehicles
- Hydrogen storage systems for fuel-cell and infrastructure

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: Cooperative Connected Vehicle
- Connected vehicles and autonomous Development
- V2X fundamentals: principles, standards, consortiums and prior work
- Government mandate
- Vehicle to Vehicle, Vehicle to Infrastructre, and Vehicle to Pedestrian safety applications.
- V2X challenges: security and privacy, positioning, deployment, scalability.
- DSRC versus cellular based technology for V2X

Time
9:00 a.m. - 5:00 p.m.
June 27 and 28, 2019.

Location
New York Automotive and Diesel Institute (NYADI)
College of Automotive and Diesel Technology
178-18 Liberty Avenue
Jamaica, NY 11433
https://nyadi.edu/

Stipend
There is no registration fee for attending this workshop. Each participant will receive a $150 stipend upon completion of the workshop.

To Register
Submit the application form on the second page of the flyer by Monday, June 10, 2019 to:
geneliao@wayne.edu
or Fax 313-577-1781

Seats are limited, please apply early. If you have additional questions, please contact Dr. Gene Liao at 313-577-8078 or above email.
http://autocaat.org/Home/
2019 Summer Professional Development Course

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)

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____________________________________________________________________________________________

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 geneliao@wayne.edu or fax to 313-577-1781 by June 10, 2019. For additional questions, please contact Dr. Gene Liao at 313-577-8078.