



University
of Windsor

CONTINUING
EDUCATION

PRESENTS

Electric Vehicle Powertrain Systems

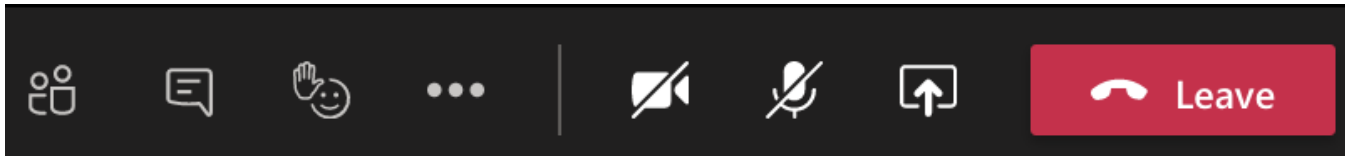
INFO SESSION

WITH

DR. LAKSHMI VARAHA IYER

House Keeping

- This session will be recorded.
- Cameras and microphones are off and muted for the duration of the session.
- Type questions in the chat during the presentation, and we will address them during Q&A



Land Acknowledgement

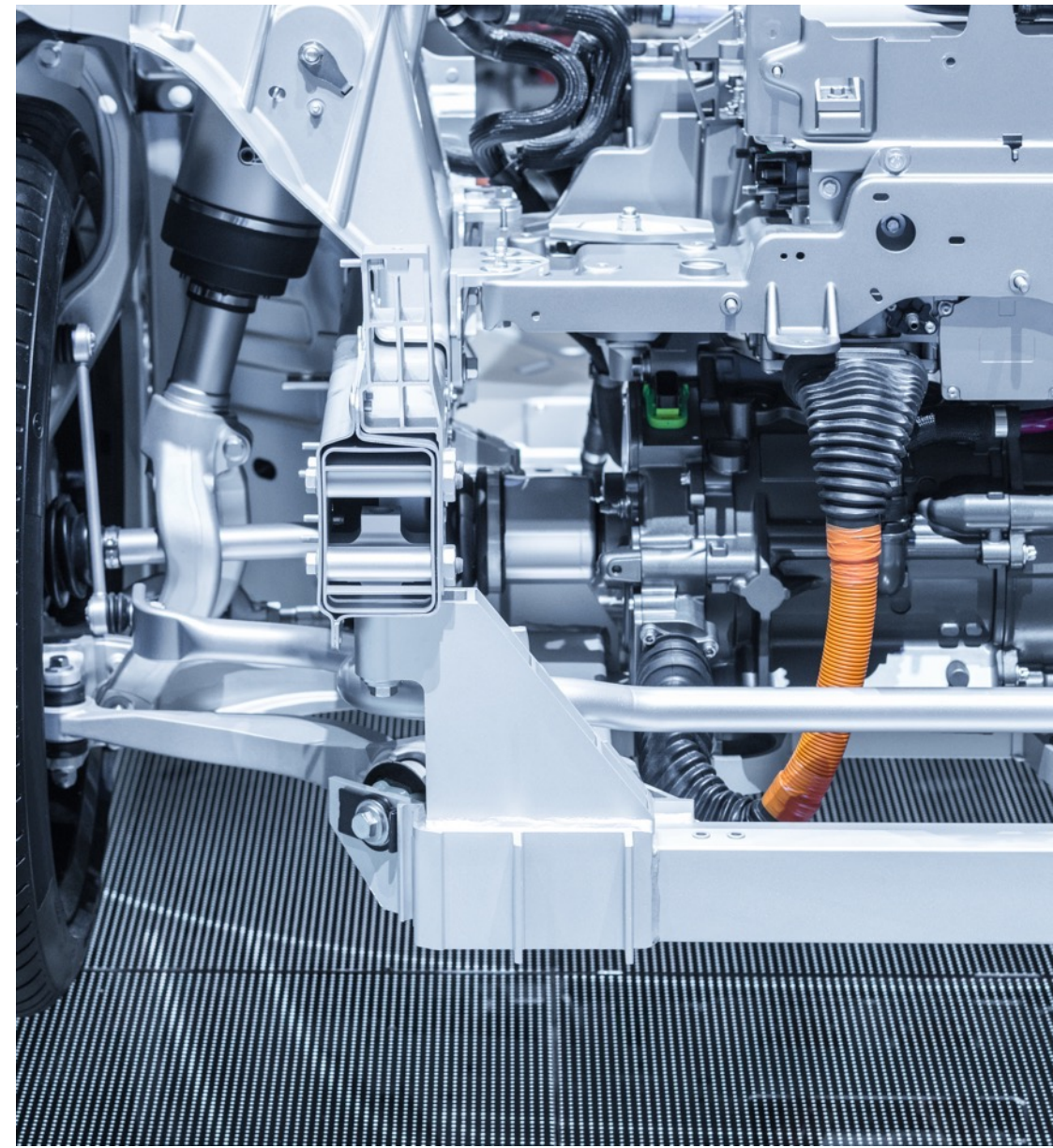
The University of Windsor acknowledges that our campus sits on the traditional territory of the Three Fires Confederacy of First Nations, which includes the Ojibwa, the Odawa, and the Potawatomi. We respect the longstanding relationships with First Nations people in this place in the 100-mile Windsor-Essex peninsula and the straits – les détroits – of Detroit. Continuing Education acknowledges the systemic oppression and generational trauma that impacts Indigenous communities today. We vow to learn about Indigenous history and complex systems of colonialism that has caused these traumas, and the results of its influence as it relates to the world we live in today. We will then seek opportunities to raise awareness of the knowledge that we've gained through continued learning.

Learn about the University of Windsor's Indigenous initiatives:

<https://www.uwindsor.ca/indigenous-peoples/>

AGENDA

- ✓ Introduction
- ✓ Speaker: Dr. Lakshmi Varaha Iyer
- ✓ Program Details
- ✓ Q&A





INSTRUCTOR:

Lakshmi Varaha Iyer

PhD, Electrical and Computer Engineering

- Senior Manager, Advanced Powertrain and Chassis, Magna International Corporate R&D
- Adjunct Professor, Department of Electrical and Computer Engineering, University of Windsor
- 2017 Governor General's Gold Medal Recipient in Canada
- Associate Editor, IEEE Transactions on Power Electronics

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CONTINUING
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Electric Vehicle Powertrain Systems

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Electric Vehicle Powertrain Systems

This course provides fundamental knowledge of the creation of state-of-the-art EVs



Unique opportunity to gain a competitive advantage through enhanced knowledge in this rapidly growing field.

The course is divided into 2 parts:

- **EV Powertrain Systems Part I**
- **EV Powertrain Systems Part II**

Electric Vehicle Powertrain Systems

Part 1

- Introduction to electric vehicle architectures
- Vehicle dynamics and drive cycles for electric vehicle powertrain design
- Asynchronous and synchronous machine fundamentals for electric vehicles

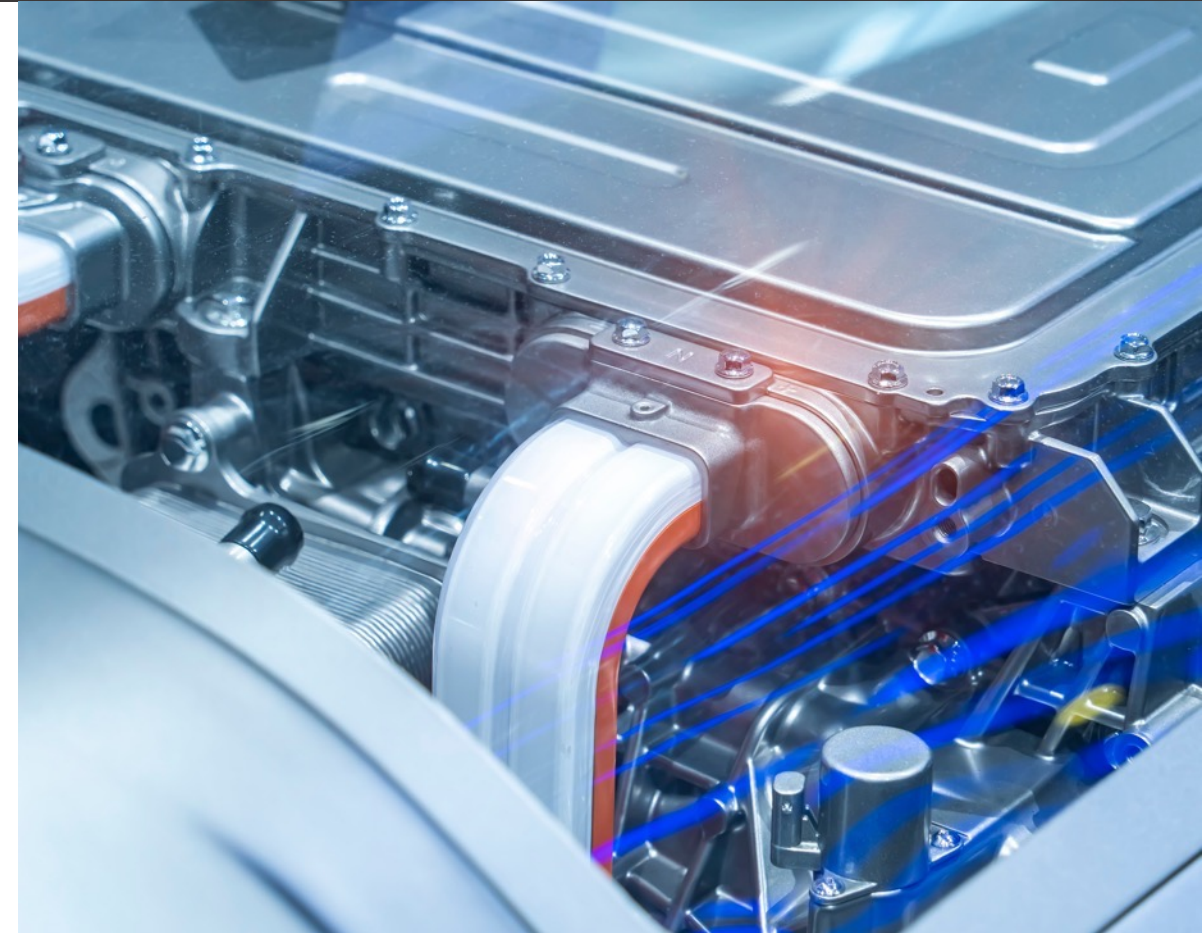
Case study: Design of traction motor for a specific electric vehicle and drive cycle



Electric Vehicle Powertrain Systems

Part 2

- Introduction to power electronic converter for motor drive
- Control of powertrain system
- Fundamentals of Energy storage, management and charging
- Electric powertrain testing and validation



Electric Vehicle Powertrain Systems

OPEN FOR ENROLMENT

✓ **Part 1 (18 hrs):**

Thursdays, Jan 15 – Feb 15, 2024
5:30pm-8:30pm, online

✓ **Part 2 (18 hrs):**

Thursdays, Apr 4 – May 9, 2024
5:30pm-8:30pm, online

Complete both parts and receive a Certificate of Participation issued by the University of Windsor Continuing Education

Program Fee: \$2160 + HST (Savings of \$240)

Ask us about:

- Canada-Ontario Jobs Grant
- OSAP Micro-credentials Application

Details: continue.uwindsor.ca

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Electric Vehicle Powertrain Systems

> Q & A

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