



Professor Ned Djilali, FRSC, FCAE

**Institute for Integrated Energy
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**University
of Victoria**

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SEMINARIO
**“E-MOBILITY: STATUS AND
PROSPECTS OF FUEL CELL AND
BATTERY ELECTRIC VEHICLES”**

Departamento de Ingeniería Eléctrica
Escuela Técnica Superior de Ingeniería
Camino de los Descubrimientos s/n
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<http://departamento.us.es/ielectrica/eventos/>

SEMINARIO
**“E-MOBILITY: STATUS
AND PROSPECTS OF FUEL
CELL AND BATTERY
ELECTRIC VEHICLES”**

PROFESSOR NED DJILALI

ORGANIZA:

**Cátedra Endesa Red
de la Universidad
de Sevilla**

27 de febrero de 2020

A las 12:30 horas

**Salón de Grados
Escuela Técnica Superior
de Ingeniería
Universidad de Sevilla**

Seminar: “E-mobility: Status and Prospects of Fuel Cell and Battery Electric Vehicles”

Speaker Bio:

Ned Djilali holds the Canada Research Chair in Advanced Energy Systems at the University of Victoria. Prior to joining UVic, he was staff specialist with the Advanced Aerodynamics Department at Bombardier Inc., where he worked on the design of the Regional Jet. At UVic he has established an internationally recognized research laboratory in the areas of energy systems and fuel cell science and technology.

Djilali has served as Director of UVic’s Institute for Integrated Energy Systems and of the Pacific Institute for Climate Solutions and was engaged in several initiatives including the BC Hydrogen & Fuel Cell Industry Strategy and the Hydrogen Highway deployed as part of the 2010 Winter Olympics. He has advised and collaborated with numerous industry partners, organizations and government agencies working on the development and adoption of zero emission energy technologies, including Toyota, Mercedes-Benz, Ballard, the BC Climate Action Secretariat, and the Wind Energy Strategic Network. He has published over 200 journal papers with a H-index of 60 (Google Scholar).



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Ned Djilali is a Thomson-Reuters Highly Cited Researcher, and a Fellow of both the Royal Society of Canada (Academy of Science) and the Canadian Academy of Engineering.

Abstract:

Electrification of the transport sector is transforming the energy system: the sources of energy and the ways in which it is stored, supplied and used are all shifting. In this talk, we outline some aspects of the emerging energy system and the integration opportunities it provides for sustainability and discuss the role of two enabling technologies: fuel cells and batteries. We review key aspects of these two electrochemical energy conversion technologies (operation, structure, materials and performance), their integration in electric power trains, and the charging/refueling infrastructure requirements and challenges. We close with a discussion of factors affecting system performance and emission reductions and a perspective on some challenges and prospects.