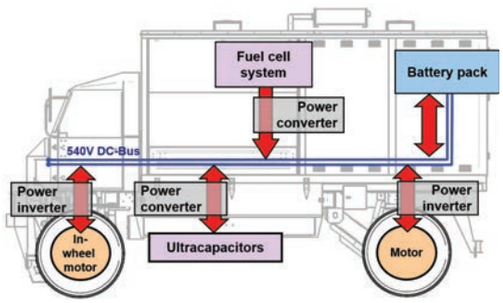
IEEE VTS
Connecting the Mobile World

IEEE VTS Motor Vehicles Challenge 2020

Energy management of a Fuel cell/ultracapacitor/battery HEV

The fourth IEEE VTS Motor Vehicle challenge is focused on a heavy-duty hybrid electric vehicle called ECCE, powered by a 30kW PEM fuel cell, 540 V 16 F ultracapacitors and a 540V -73Ah battery pack. The FC, the UC and the traction motors are connected to a 540 DC bus via power converters. The battery is directly connected to the DC bus.



The challenge is to propose an Energy Management Strategy (EMS) to reduce the hydrogen consumption and to increase the lifetime of the energy sources. A Matlab-Simulink model of ECCE and its control will be provided to the participants. Both industrial and academic teams are welcomed to propose their own EMS. Two power profiles are provided to evaluate the EMS. However, the solutions will be scored using a third secret profile.

The participants will be invited to attend the 2020 IEEE VPPC conference.

First Prize

US$3500 grant to attend VPPC 2020

Second Prize

US$1500 grant to attend VPPC 2020

This competition is open to everyone (students, academics, industry).

A participant must be a VTS member at the time of registration in order to receive the grant, so **JOIN NOW** and Compete with the best teams from around the world!

Register to complete	Submit strategy by	Results
December 15, 2019	**February 8, 2020**	**February 30, 2020**

Challenge Committee Chairs

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