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News

Training and Careers

A team of three students from IFP School's Powertrain Engineering (PWT) program arrived first in the "Student Challenge" during the international congress of the Society of Automotive Engineers (SIA), held on June 19 and 20 at the Grand Palais in Lille.

Quentin Cremel (France), Pierre Sola (France) and Renato Amorim Dias (Brazil) won first prize for best poster. They developed an adaptable Energy Management System (EMS) to optimize hydrogen consumption in Fuel Cell Electric Vehicles (FCEVs).

Using the Pontryagin Maximum Principle (PMP), the EMS minimizes fuel cell power demands while maintaining battery state of charge (SoC) within optimal ranges. Simulations done by the group showed a 24% reduction in hydrogen consumption compared to traditional strategies. The PMP-based EMS, designed for heavy-duty applications, ensures improved fuel efficiency and range, supporting sustainable transportation solutions.

The group was supervised by Martín Pérez Chuecos, himself a graduate of the PWT program (class of 2017).

Congratulations to our students!

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