The fuel cell vehicle may be the future? The Team H2politO case study

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Nowadays the question about the future mobility using battery or fuel cell is more and more important to reduce emissions and consumption. Considering the Net Zero Scenario of 2050 also inside the University is necessary to introduce innovative and multidisciplinary methods for teaching.

The Team H2politO goal is design, build, assembly and test on track a real vehicle prototype with a goal: reduce the consumption and increase the distance obtained with the equivalent of 1 L of gasoline. The main final challenge is partecipe to the Shell Eco-marathon, where the most important University are present.

The interdisciplinary Team, made by students, give an opportunity to tackle a "new teaching", different from that of the traditional classroom lesson given by the teacher, but innovative with the students who are able to tackle complex technical problems, such as those they will face in the world of work, with particular reference to the use of hydrogen.

The Team, from 2008, develops vehicle prototypes moved by a Proton Exchange Membrane Fuel Cell coupled with an electric motor, where the control logic is developed to optimize: purge, short circuit, humidification and operating time with a first important goal: reduce the consumption.