

## Master Thesis Brief Description

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<b>Thesis Title</b>	<b>The advancements in the field of Hybrid Electric – Fuel Cells Vehicle</b>
<b>Programme of Studies</b>	MSc in Sustainable Energy Systems
<b>Course</b>	MES 580 MSc Thesis
<b>Area of Study</b>	Sustainable Transportation
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<b>Supervisor</b>	Dr.-Ing. Paris A. Fokaides, Asst. Professor, Mechanical Engineering Department
<b>Supervisory Committee</b>	Dr. Nicholas Christofides, Assoc. Professor, Electrical Engineering Department Dr. Julios Vasileiou, Mechanical Engineering Department
<b>Semester</b>	Fall Semester 2021
<b>Short Description</b>	<p>This master thesis delves into the advancements in the field of Hybrid Electric-Fuel Cells Vehicles (HEFCVs), exploring their potential as a sustainable transportation solution. With the growing concern over fossil fuel consumption and environmental pollution, HEFCVs have emerged as a promising alternative, combining the benefits of both electric and fuel cell technologies. The study begins with an in-depth literature review, analyzing existing research, development, and practical applications of HEFCVs. Various aspects, such as their performance, efficiency, emissions, and overall environmental impact, were thoroughly evaluated to gain a comprehensive understanding of their capabilities. Additionally, the thesis investigates the challenges and barriers faced during the integration of fuel cell technology in hybrid electric vehicles. Strategies for optimizing performance, enhancing efficiency, and ensuring cost-effectiveness were examined, along with the identification of potential areas for future research and development. Through this research, valuable insights into the potential and challenges of HEFCVs are presented, contributing to the advancement of sustainable transportation solutions and paving the way for a cleaner and greener future.</p>