

Graduate Institute of Vehicle and Energy Engineering

Contact Information

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Introduction

Founded in 2025, the Graduate Institute of Vehicle and Energy Engineering aims to provide quality education in vehicle and energy engineering that is well-grounded in both fundamental principles and practical applications.

The mission of the Graduate Institute of Vehicle and Energy Engineering is to serve the students of National Taiwan Normal University by:

1. Providing an excellent environment that cultivates in-field experts in both vehicle and energy engineering fields who are capable of performing both theoretical research and engineering practices
2. Providing both academic-oriented and application-oriented core courses in vehicle, energy, and mechatronics engineering that prepare students for successful careers in industry, government, and academia.



TESLA Model 3 LR Dual Motor



Hyundai Ioniq 5 600V System

Instructional Objectives

To equip students with essential technical knowledge in Vehicle Engineering and Energy Engineering.

To develop professional competencies in analyzing, designing, and implementing mechatronic integrated engineering systems.

To cultivate the ability to integrate, plan, apply, market, and manage interdisciplinary knowledge.

Feature of the Curriculum

The required courses include a thesis and Seminars (I) and (II), totaling 4 credits, focusing on diverse topics such as vehicles, energy, power electronics, and refrigeration and air conditioning. Students must complete 18 elective credits, comprising 9 credits of core courses and

9 credits of professional electives. The courses include Advanced Vehicle Control System, Advanced Hybrid Power Vehicle, Advanced Thermodynamics, Advanced Heat Transfer, Renewable Energy and Energy Storage Systems, Building Energy Conservation, Advanced Fluid Mechanics, and Hybrid Vehicles. Additionally, students may take 6 free elective credits from other courses offered by the university. A total of 28 credits is required for graduation.

Career Prospects

Students may choose to pursue employment after graduation, such as technicians and engineers in automotive manufacturing, technicians and engineers in refrigeration and energy plants, and engineers in the field of power electronics.

Degree Requirements

