



סמינר - SEMINAR

הנד מוזמנת/ת להרצאה סמינריונית של הפקולטה להנדסת מכונות, שתתקיים ביום ג' 24.02.15 (ה' באדר, תשע"ה), בבניין דן-קאהן, קומה 0, באודיטוריום 1, שעה 14:30.

ירצה:

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על הנושא:

Powertrain system design and configuration for a PHEV City Bus

להלן תקציר ההרצאה:

New Energy Vehicle (NEV) is a promising way for automotive industry to meet the challenges of environment pollution and oil shortage. Plug-in hybrid electric vehicle (PHEV) is one of the considered configurations for China NEV. Because the PHEV uses both fuel and electricity, it can overcome the weakness of battery and keep the vehicle long mileage and reliability.

This presentation is focused on research of a PHEV for City Bus. Design of a power system by using a natural gas engine and a flywheel motor, the powertrain performance optimization, energy management strategy, dynamic mode switching control strategies, design and testing of vehicle systems for city bus plug-in hybrid system are studied.

PHEV vehicle test system was designed using a uni-axial parallel hybrid system characteristics based on the PHEV powertrain test-bed and PHEV vehicle bench experimental platform. The PHEV system simulation model was validated on PHEV vehicle experimental platform. PHEV energy management strategy was verified with working mode shifting experiments. Parameters of dynamic performance and energy efficiency were got through the vehicle's road test. The proposed PHEV dynamic mode switching control strategy was validated by experiments with the vehicle impact degree as the evaluation criteria. Vehicle experimental results show that the optimized PHEV powertrain performance and control strategy ensured excellent driving comfort under great fuel economy.

בברכה,

המארח: ד"ר לאוניד טרטקובסקי

פיוני' 11 אמי' 15
מרכז הסמינרים