Electric Vehicles

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EEE

Evaluation Schedule

EC No.	Evaluation Component	Time Duration (min)	Weightage(%)	Marks	Date & Time	Nature of Component
1	Midsem	90	30	60	08/10 - 9.30 - 11.00AM	CB
2	Quizzes	TBA	15	30	To be announced (TBA) in Class	CB
3	Project	TBA	20	40	To be announced (TBA) in Class	OB
3	Comprehensive Exam	180	35	70	05/12 FN	CB
	Total		100	200		

Some Important Points

- Chamber Consultation hour –Friday 4:30 pm to 5 pm, Saturday 9:30 am to 10 am
- No make-up exams will be conducted if a student misses a quiz.
- Make-up for the midterm and comprehensive exam will be granted as per AUGSD rules and regulations
- Notices regarding the course will be displayed in LMS.

Motivation

- Electric Vehicle (EV) is going to be the most important medium of transportation in the near future.
- Transportation using internal combustion engines (ICE) creates significant pollution, that's why the focus is on EVs so that cars don't emit any polluting gases.
- But electricity is generated from coal plants.
- So by replacing ICEs with EVs, are we really doing anything good?
- EVs will be really helpful for the world if we generate electricity from renewable energy.

Course Content

- In this course, we will first learn about various components of an EV - its technology and economics.
- The components of EVs are batteries, electrical motors, power electronics, energy management and control systems etc.
- We should discuss some important questions

  -why are EVs not penetrating significantly in the Indian market?

  -How can we reduce its overall cost?

  -How can EV charging station business models be developed?

Course Content

- Case studies of developed countries where EV penetration is good enough.
- The impact of penetration of EVs on the power grid. In this context, shall explain the smart power grid with renewables.
- Job opportunities in various sectors like electronics, software, consulting, finance, electrical etc related to EVs.