

### Course outline

How does an NPTEL online course work?

**Module 1 - Overview of Electric Vehicles in India**

**Module 2 - Vehicle Dynamics**

**Module 2 and 3 - Vehicle Dynamics and EV Subsystems**

- Lecture 17 - Drive Cycles and Energy used per km - Part 1
- Lecture 18 - Drive Cycles and Energy used per km - Part 2
- Lecture 19 - EV Subsystem: Design of EV Drive Train - Part 1
- Lecture 20 - EV Subsystem: Design of EV Drive Train - Part 2
- Week 3 Slide Content
- Week 3 Feedback Form: Electric Vehicles and Renewable Energy
- Quiz: Week 3: Assignment 1
- Quiz: Week 3: Assignment 2**
- Week 3: Solutions

**Module 4 - Storage for EVs**

- Week 3 Feedback Form: Electric Vehicles and Renewable Energy
- Quiz: Week 3: Assignment 1
- Quiz: Week 3: Assignment 2**
- Week 3: Solutions

**Module 4 - Storage for EVs**

**Module 4 - Storage for EVs (contd)**

**Module 5 - Fundamentals of battery pack design**

**Module 5 and 6 - Battery Pack Design, Motors and Controllers**

**Module 6 - EV Motors and Controllers**

**Module 7&8 - Battery Charging and Swapping, Analytics**

**Module 9: Renewable Energy - Introduction**

**Module 10: Renewable Energy - Solar and Wind Energy**

**Module 11: Renewable Energy**

Live Session

## Week 3: Assignment 2

The due date for submitting this assignment has passed.

**Due on 2021-08-25, 23:59 IST.**

As per our records you have not submitted this assignment.

Que 3.1) A EV battery has a capacity of 15 kWh. Assuming 0.9 DoD and 75% end of life, what is the range that the vehicle (using 80 Wh/km) can support, when the battery is new. What range will it support at the end of life? Assume, Auxilliary power used is 500 W continuously and the efficiency of motor and controller is 85% each.

- 1) What is the Vehicle range in km when Battery is new

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(Type: Range) 105,130

1 point

- 2) What is the Vehicle range in km at end of life of Battery

No, the answer is incorrect.  
Score: 0

Accepted Answers:  
(Type: Range) 75,100

1 point

(Type: Range) 75,100

1 point