

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

Module 4 - Storage for EVs

- Lecture 21 - Introduction to Battery Parameters -Part 1
- Lecture 22 - Introduction to Battery Parameters - Part 2
- Lecture 23 - Why Lithium Ion Battery? - Part 1
- Lecture 24 - Why Lithium Ion Battery? - Part 2
- Lecture 25 - Batteries in Future
- Lecture 26 - Li-Ion Battery Cells

 Quiz: Week 4: Assignment 1

 Quiz: Week 4: Assignment 2

 Quiz: Week 4: Assignment 3

 Quiz: Week 4: Assignment 4

 Week 4 - Lecture notes

 Week 4 - Feedback form: Electric Vehicles and Renewable Energy

 Quiz: Week 4: Assignment 1

 Quiz: Week 4: Assignment 2

 Quiz: Week 4: Assignment 3

 Quiz: Week 4: Assignment 4

 Week 4 - Lecture notes

 Week 4 - Feedback form: Electric Vehicles and Renewable Energy

 Week 4: Solutions

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

Week 4: Assignment 1

The due date for submitting this assignment has passed.

Due on 2021-09-01, 23:59 IST.

As per our records you have not submitted this assignment.

1) A 34 kWh battery is charged at SoC of 64%. What is energy it contains. Energy Content (kWh) = _____ (correct upto two decimal places.)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 21.7,21.8

1 point

2) A 34 kWh capacity battery is voltage 350V. What is its capacity in Ah Capacity (Ah) = _____ (correct upto two decimal places.)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 97.1,97.2

1 point

 3) A 3.5V battery is at 2.7V at SoC of 0% and 4.3V at SoC of 100%. This implies the voltage of the battery lies in between $3.5 \pm \Delta\%$ volts. What is $\Delta\%$ = _____ (correct upto one decimal place.)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 22.7,22.9

1 point

An EV battery is at 2.7V at 0% SoC and 4.3V at 100%. Assuming SoC is linear function* of voltage, what is (a) SoC at 4V and (b) voltage at SoC of 64%? (* It is actually not a linear function (discussed later).)

Score: 0

Accepted Answers:

(Type: Range) 22.7,22.9

1 point

An EV battery is at 2.7V at 0% SoC and 4.3V at 100%. Assuming SoC is linear function* of voltage, what is (a) SoC at 4V and (b) voltage at SoC of 64%? (* It is actually not a linear function (discussed later).)

4) (a) SoC (%) at 4V = _____ (correct upto two decimal places.)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 81.2,81.3

0.5 points

5) (b) Voltage (V) at SoC of 64% = _____ (correct upto two decimal places.)

No, the answer is incorrect.

Score: 0

Accepted Answers:

(Type: Range) 3.72,3.73

0.5 points