

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

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

Lecture 73 - EV Charger Introduction

Lecture 74 - Charger Parameters and Types

Lecture 75 - Slow/Fast chargers and Swapping

Lecture 76 - Swapping

Lecture 77 - Standardization and on board chargers

Lecture 78 - Public chargers

Lecture 79 - Public charger economics in Indian Context

Lecture 80 - Bulk Chargers, Swapping stations and data analytics

Week 9: Lecture notes

Quiz: Week 9: Assignment 1

Quiz: Week 9: Assignment 2

Quiz: Week 9: Assignment 3

Quiz: Week 9: Assignment 4

Quiz: Week 9: Assignment 5

Week 9: Feedback form: Electric Vehicles and Renewable Energy

Week 9: Solutions

Module 9: Renewable Energy - Introduction

Module 10: Renewable Energy - Solar and Wind Energy

Module 11: Renewable Energy

Live Session

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Week 9: Assignment 5

The due date for submitting this assignment has passed.

Due on 2021-09-29, 23:59 IST.

As per our records you have not submitted this assignment.

1) Lock smart batteries provide theft free operations.

1 point

- True
 False

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 True

2) In a hub and spoke model the batteries are charged at a common place, distributed at various places and swapped at various outlets.

1 point

- True
 False

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 True

3) LS VBCC protocol stands for ___ protocol.

1 point

- Lock smart vehicle battery charger cloud
 Locking service vehicle battery charger cloud
 Legitimate service vehicle battery charger cloud
 Light service vehicle battery charger cloud

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 Lock smart vehicle battery charger cloud

4) AC001 has a single phase 230V input.

0 points

- True
 False

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 True

5) Charging points installed at homes are recommended to be fast chargers.

1 point

- True
 False

 No, the answer is incorrect.
 Score: 0

 Feedback:
 Slow chargers are deployed at homes.

 Accepted Answers:
 False

 Time taken for fast charging is less than $[A]$ hrs whereas time taken for slow charging is usually more than $[B]$ hrs.

6) The value of A is

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 (Type: Range) 0,1

0.5 points

7) The value of B is

 No, the answer is incorrect.
 Score: 0

 Accepted Answers:
 (Type: Range) 1,100

0.5 points

chargers and Swapping

Lecture 76 - Swapping

- True