

# **Algorithms for Battery Management Systems Specialization** <sup>[1]</sup>

## **About This Specialization**

In this specialization, you will learn the major functions that must be performed by a battery management system, how lithium-ion battery cells work and how to model their behaviors mathematically, and how to write algorithms (computer methods) to estimate state-of-charge, state-of-health, remaining energy, and available power, and how to balance cells in a battery pack.

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**Language**  
English



**Level**  
Intermediate  
**C**

ommitment?



3 months at 12 hours/week

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## Specialization Overview

There are 5 Courses in this Specialization:

- Introduction to Battery-Management Systems
- Equivalent Circuit Cell Model Simulation
- Battery State-of-Charge (SOC) Estimation
- Battery State-of-Health (SOH) Estimation
- Battery Pack Balancing and Power Estimation

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**For More Information or to Enroll**



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Created by:



University of Colorado

Boulder | Colorado Springs | Denver | Anschutz Medical Campus

**Groups audience:**

MOOCs

**Right Sidebar:**

MOOC: Battery Management Systems Sidebar

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**Links**

[1] [https://www.cu.edu/mooc/battery\\_management\\_systems](https://www.cu.edu/mooc/battery_management_systems)

[2] <https://www.coursera.org/specializations/algorithms-for-battery-management-systems>