



## Teaching Learning Practice



**Title :** Electric Vehicle Battery Management Systems and its fault diagnostics

**Date :** 2026-01-14 - 2026-01-14

**Time :** 11:45 - 13:15

**Venue :** TT727

### Event Outcome

- The workshop enhanced participants knowledge of EV Battery Management Systems and fault diagnostics. It empowered them with practical skills and collaborative experience to apply in real world sustainable mobility solutions



### **Resource Person 1 - Details**

**Name :** Rammohan A

**Designation :** Associate Professor Grade 1, Automotive Research Centre

**University/ Company :** VIT, Vellore

**Address :** India, 632014.

### **Resource Person's Profile :**

#### **1. Profile of Rammohan A**

Dr. A. Rammohan has been working as an Associate Professor at the Automotive Research Centre (ARC), Vellore Institute of Technology (VIT), Vellore, India for 14 years, He received his Ph.D. from VIT in the field of Automotive LED Lighting and a Masters degree in Embedded Systems from SASTRA in collaboration with NTU, Singapore.

This workshop explores the critical role of Battery Management Systems (BMS) in ensuring the safety, efficiency, and reliability of Electric Vehicles. Participants will gain insights into BMS architecture, including state-of-charge estimation, state-of-health monitoring, thermal management, and cell balancing. Special emphasis will be placed on fault diagnostics, covering issues such as overcharging, discharging, short circuits, sensor failures, and thermal runaway. The program integrates both model-based approaches and data-driven techniques for early fault detection and predictive maintenance. Hands-on demonstrations and case studies will equip attendees with practical skills to design, analyze, and troubleshoot EV battery systems effectively.

Electric Vehicle

**Coordinator's:** Prof. RAMMOHAN A 12832 - Associate Professor Grade 1 - ARC  
Prof. THUNDIL KARUPPA RAJ R 12449 - Professor Higher Academic Grade - SMEC