

Departmental Seminar

Seminar Title	: Bidirectional DC converter using Li-Ion battery for EV Applications
Speaker	: Charan Reddi (222ee4303)
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Venue	: Seminar Room (EE-205)
Date and Time	: 19 Apr 2024 (3:00 PM)
Abstract	: As a green and sustainable means of transportation, electric vehicles (EVs) have attracted much interest. The Li-Ion batteries, which store and transmit electrical energy to power the vehicle's propulsion system, are essential to the effective operation of EVs. For a battery to last longer, have a greater driving range, and be reliable, effective battery management, including charging and discharging procedures, is essential. This abstract offers a summary of the key elements of employing bidirectional DC converters to charge and discharge Li-Ion batteries in electric vehicles. The bidirectional DC converter is essential for controlling the flow of electricity between the battery pack of the car and outside DC sources like charging ports and regenerative braking systems. The battery can be charged while connected to an external power source, and stored energy can be discharged to power the vehicle with no interruptions because of this technology's flawless bidirectional energy transfer capability.