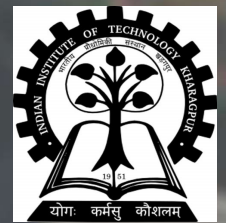




**BITS Pilani**  
Pilani | Dubai | Goa | Hyderabad



# Development of Electric Vehicle, Software, Architecture and Control

## Workshop

Half Day Interactive Session

Registration Fee : Rs 500/-

Registration Link : [Click Here](#)

Google Form Link : [Click Here](#)

Date: 8<sup>th</sup> September 2022

Venue: BITS PILANI KK Birla  
Goa Campus

Reporting Time : 8.45 AM

## Speaker

**Prof. Siddhartha Mukhopadhyay**  
Department of Electrical Engineering  
IIT Kharagpur

### Contents

- ❖ E – Mobility
- ❖ Energy Management Systems
- ❖ Battery Management System
- ❖ Development, Software and Testing

### Faculty Coordinators:

1. Dr. Soumyabarta Barik
2. Dr. Sudarshan Swain
3. Prof. Ranjit Patil
4. Dr. Nilesh Pawar
5. Prof. Abhijit Pethe

## About BITS Pilani, Goa Campus:

Birla Institute of Technology and Science, Pilani is a private deemed to be university established under sec 3 of UGC in 1964. It has 5 campuses located in Pilani, Goa, Dubai, Hyderabad and Mumbai: It is declared an **Institute of eminence** by Ministry of Education GOI in 2018. BITS Pilani KK Birla Goa Campus was established in 2004. It has 10 departments. The total faculty strength is 200+, and 360+ PhD students are pursuing their research. The campus has grown significantly in Sponsored research with 120+ ongoing projects. The campus has received funding from various national and international agencies from Govt and Industry.

## The Essence of the Session

India has targeted to manufacture and deploy EVs in large numbers in the country, to reduce greenhouse gases and emissions, ensure energy security and boost indigenous manufacturing. India lags in the availability of an indigenous technology base for key xEV (acronym for all EV variants like HEVs, BEVs, PHEVs, etc.) subsystems. The customer expectations and technology challenges for India's road transportation system are unique and stiff. To upgrade the Technology Readiness Level (TRL) of Indian EV technologies, the key is to launch vigorous indigenous R&D. Interestingly, the Control Engineering perspective of xEVs is largely missing from the Indian automotive R&D community, both in the industry and the academia. This session attempts to contribute to filling this gap by revealing the significant dynamic control and optimization perspectives of energy management of EV, the central performance

target that is at the core of the EV revolution.

## Goal of Work shop:

The target outcome is a basic yet holistic understanding of:

- ❖ Various factors of Energy Management in Electric Vehicle and techniques to include those factors
- ❖ Battery management system architecture and Key Challenges
- ❖ Computational architectures for on-board implementation and testing of Energy Management and Battery Management System.

## Registration Procedure:

- ❖ Interested candidates have to fill the online form on or before (07/09/2022).
- ❖ Candidates can register for the workshop through the online registration link by paying the registration fee which is applicable for non-BITS participants.

## Speaker:

The Session is offered by **Prof. Siddhartha Mukhopadhyay, EE, IIT Kharagpur**. Prof. Mukhopadhyay has experience of work and interaction with a number of national industrial organizations, namely GM, USA, TataMotors, Pune, EATON India, Pune, ARAI, Pune, KPIT, Pune, HBL Power Systems, Hyderabad, as well as international R&D organizations like WMG, UK and TU Munich and Ingolstadt, Germany on related areas. He also has experience of working on various facets of xEV energy management including development of algorithms as well as embedded software and hardware for automotive power trains, battery management and diagnostics for the last six years.

Webpage: <http://www.iitkgp.ac.in/department/EE/faculty/ee-smukh>

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