



PhD Project

Project Details	
Project Title	An exploration of control strategies for vehicle ride and handling enhancement
Project Summary	The project will investigate the application of control systems for vehicle suspension design to achieve desired ride and handling characteristics. There are two stages in this project. In the first stage, the mathematical models of varying complexity will be developed and will be interfaced with different controller to explore the performance characteristics. This will be followed up in the second stage with building the physical vehicle prototype initially for model validation and later to test the suitability of different control frameworks on the test vehicle.

PhD Supervisors			
Role	Faculty	Academic Unit in IITD	Email ID
Supervisor 1	Husain Kanchwala	CART	husaink@iitd.ac.in
Supervisor 2	Subashish Datta	Electrical	subashish@ee.iitd.ac.in

Project requirements (Student qualifications, experience required, etc)
<ul style="list-style-type: none"> Bachelors or Masters in Mechanical/ Electrical Engineering with CGPA 7.5 or above. Hands on knowledge of MATLAB/Simulink. Some basic knowledge of vehicle systems. Basic course in classical or modern control system.

Source of funding (IRD/FITT Project details, if any)
To be explored. We will depend on the institute for relevant funding.

Role of Faculty Members involved:
<p>Prof. Husain Kanchwala will assist in the mathematical modeling of the automotive system followed by experimental testing and simulation.</p> <p>Prof. Subashish Datta will assist in the control system modeling, integration and validation.</p>