

Project Title	Self Driving Car
Summer Internship/ Semester Long Project/ Paper related project/ Other (Please specify)	Semester Long Project (students are currently working on development of an autonomous vehicle in collaboration with Indraprastha Institute of Information Technology since September, 2017)
Student's Name/s	<ol style="list-style-type: none"> 1. Ridhwan Luthra (6th Sem): 3D and 2D computer vision, Deep learning 2. Vikas Kamboj (4th Sem): Control Theory and Electronics 3. Vinay Raj (6th Sem): Mechanics and Electronics 4. Aditya Sharma (4th Sem): Electronics 5. Shashwat Yashaswi (4th Sem): Linux system, Logging of drivers and setting up new hardware.
Mentor's Name and Affiliation	Shobha Rai
Abstract	The project aims to develop an in-house prototype of self driving car. Autonomous vehicles are going to be an integral part of our society in the future. This project aims to bring down the cost of the car by reducing the cost of the number and cost of sensors as much as possible without compromising on the safety of the vehicle. We aim to help in the acceleration of development of affordable and reliable self driving cars that can reach the hoi polloi. The prototype will be able to navigate through a test arena without human intervention and in real time. We aim to use the images from the camera to detect lanes and traffic signs and navigate through arena while following the traffic rules. When implemented in the real world, it has the potential to make the roads much safer by removing human errors.
Important outcomes of the project	<ol style="list-style-type: none"> 1. A computer simulation of the self driving car model. 2. Creating an in-house prototype with required sensors 3. Integrating the software model with the prototype and testing it in test arena. 4. Publishing a research paper on the viability of reducing the cost of self driving cars.
Future prospects	Autonomous vehicles are going to replace human driven vehicles in the future. By creating an in-house prototype, we seek expedite that process by reducing the cost so that it can be seen as a viable option by the masses.