Project_No:27

K. J. Somaiya College of Engineering, Mumbai-77
Application for LY B. Tech Project

Department: EXTC Department Thrust Area: Internet of things(IOT) & Machine Learning

Title: Internet of thing (IOT) and Machine Learning BASED SMART VEHICLE

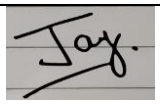
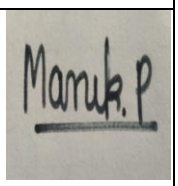
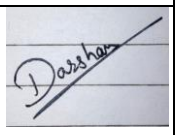
Category: Departmental: Internal

Whether will receive finance from any agency: No. If yes attach details.

Objectives of the project in brief (attach separate sheet if required)

We are aiming to make an IOT based smart vehicle. The following vehicle will follow a targeted path automatically avoiding any obstacle that come on its way .The car will achieve this using mounted cameras and ultrasonic sensors in real time. The project will also use computation and communication techniques as well. This will be a prototype version, the real life application for human scalable version of this project is automated driving during heavy traffic jams, hence relaxing drivers from continuously braking or accelerating.

We declare that the proposed work is based on our and / or others' ideas which will be adequately cited and referenced in the reports. We also declare that we will adhere to all principles of intellectual property, academic honesty

Roll No.	Names of the students	Branch	Email Id and Mobile no.	Signature of the Student
1813022	JAY JAIN	EXTC	jjj@somaiya.edu	
1813023	ASHISH KHARE	EXTC	ashish.khare@somaiya.edu	
1813032	MANIK PAHALWAN	EXTC	manik.p@somaiya.edu	
1813049	DARSHAN SHAH	EXTC	darshan.as@somaiya.edu	

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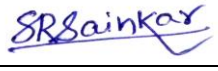
	@Name	Dept. / organisation	Signature
Guide	Mr Sandeep Sainkar	EXTC	
Co-guide / External guide			
Co-guide / External guide			

@ In case of external guide give mobile no. and email id.

Date **Signature of IRRC** Committee Member/s

K. J. Somaiya College of Engineering, Mumbai-77

- All the student members of the group must have understanding in all respect towards the execution, completion and evaluation of project work
- Both guide and co-guide must have understanding in all respect towards the execution, completion and evaluation of project and will work as an examiner for all the intermediate examinations including final defense. The co-guide can be other than KJSCE.
- For interdisciplinary project there will be one Guide as principle investigator and there can be 1-2 co-guides depending upon the project.
- For interdisciplinary project there will be intermediate evaluation / final defense organised by the parent department of the guide.

Time line chart for project / thesis work completion

	Task (to be filled by the students at the time of IRRC approval)	**Comment of guide about actual results / progress / level of work completed**	**Signature of Guide / Co-guide With date**
July Second fortnight	Literature survey		
August First fortnight	Literature survey		
August Second fortnight	Working on object detection and collision avoidance algorithms		
Sept. First fortnight	Making track , arduino as feedback which decides next step		
Sept. Second fortnight	Collecting and interfacing hardware components of the car , improving vehicle design, wire routing ,		
Oct. First fortnight	Setting up local workstation and connectivity , setting up external props for car		
Oct. Second fortnight	Testing hardware components through code , and writing code for connectivity for communication between microcontrollers and workstation.		
Nov. First fortnight	Calibrating sensors and camera inputs(integrated testing), testing motor drivers etc.		

The objectives which will be achieved before VII semester examination

Time line chart for project / thesis work completion

	Task (to be filled by the students at the time of IRRC approval)	**Comment of guide about actual results / progress / level of work completed**	**Signature of Guide / Co-guide With date**
Jan. Second fortnight	Writing Integration pipelines		
Feb. First fortnight	First manual test run of car through keyboard and catching images of track along the way to train our machine learning model.		
Feb. Second fortnight	Creating machine learning models which are responsible for object detection		
March First fortnight	Fixing hardware issues and all.		
March Feb. Second fortnight	Optimizing car performance during runs		
April First fortnight	Final run of car		
April Second fortnight	Rectifying any issues if found		

The objectives which will be achieved before VIII semester final defense