Project Design Phase - I
Proposed Solution Document

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Project	Signs with Smart Connectivity for better road safety

Proposed Solution:

S.NO	Parameter	Description
1	Problem Statement(Problem to be solved)	• In present Systems the road signs and the speed limits are Static. • But the road signs can be changed in some cases. • We can consider some cases when there are some road diversions due to heavy traffic or due to accidents then we can change the road signs accordingly if they are digitalized.
2	Idea/Solution Description	• This project proposes a system which has digital sign boards on which the signs can be changed dynamically.If there is rainfall then the roads will be slippery and the speed limit would be decreased. • There is a web app through which you can enter the data of the road diversions, accident prone areas and the information sign boards can be entered through webapp. This data is retrieved and displayed on the sign boards accordingly.

3	Novelty/Uniqueness	• Reflective street signs and traffic signs are some of the most technologically advanced pieces of safety equipment that you will find on the road today. Streets are very safe due to restrictive speed limit signs and careful drivers, but what if the road itself helped us to be safe?
		• Dutch designers have recently developed a "smart road" that takes safety practices that we use now, such as those well lit and reflective traffic signs, and uses interactive technology to make the road help you see potential hazards. Currently, the best that we can do is to post Slippery When Wet signs or other MUTCD compliant traffic signs to alert drivers that ice may form on the road. These designers have laid out a blueprint for the road itself to change colors when there is the possibility of ice.
		• The plan is not to eliminate traffic signs, but to add value to them, and to do it in an environmentally smart way through new uses of wireless technology, cameras, and fiber optic lines. The new methods are able to change with variations to the weather and to traffic volume, which could help decrease traffic jams. If traffic moves more smoothly, highway safety would be increased and we would also reap the benefit environmentally. Less traffic holdups equals less emission output.
		• Using the same principals that originally caused traffic signs to use high grade reflective materials, these new roads use specialized paints that can store sunlight. This stored energy helps the paint to glow for up to ten hours, night after night. The road visibility that is gained from the paint can be turned into savings – a reduction of traditional street lights

		that are left on whether there are cars driving by or not. The designers have also created new wind powered lights, and they are made to harness a very unique type of wind – the draft from your passing automobile. Using these eco-friendly lights and the glowing paint really adds up in environmentalsavings. Conventional st reet lights will still light the way, but they will be turned on by sensors that detect nearby cars and trucks. • New ideas like smart roads, in addition to properly used and maintained traffic signs, are only the second most important thing that we can do to have safe streets. The most important part of being on the road is being a safe and smart drivers . No amount of street signs or reflective paint will ever change that fact.
4	Social impact/Customer Satisfaction	• Increases interaction with the human and application • Improves accurate result as expected • An automated sign Board controls according to the environment • Accurate prediction at good time complexity
5	Business Model(Revenue Model)	• Solutions prospects of improvement • Suits for better saving of involvements • Economical Development • Easy interface
6	Scalability of the solution	• Good conversation with ethnicity people. • Saves enough time for performing internal operations. • It does not require for the users to spend some money in offering their basic data into the model. • On the spot result for the users