

## **PROBLEM STATEMENT**

### **Signs with Smart Connectivity for Better Road Safety**

#### **1. Who does the problem affect?**

.More than half of all road traffic deaths and injuries involve vulnerable road users, such as pedestrians, cyclists and motorcyclists and their passengers. The young are particularly vulnerable on the world's roads and road traffic injuries are the leading cause of death for children and young adults aged 5–29.

#### **2. What are the boundaries of the problem?**

The intersection traffic signal control problem (ITSCP) has become even more important as traffic congestion has been more intractable. The ITSCP seeks an efficient schedule for traffic signal settings at intersections with the goal of maximizing traffic flow while considering various factors such as real-time strategies, signal timing constraints, rapid developments in traffic systems, and practical implementation. Since the factors constituting the ITSCP exhibit stochastically complicated interactions, it is essential to identify these factors to propose solution methods that can address this complexity and still be practically implemented.

### **3.What is the issue?**

Around the world, road traffic injuries cause 1.35 million deaths and up to 50 million injuries each year. These injuries can lead to lifelong disabilities including brain and spinal cord injury. Road traffic injuries are the leading cause of death among young people aged 15-29.

### **4.When does the issue occur?**

How different factors of Roads contribute in Accidents:  
Drivers: Over-speeding, rash driving, violation of rules, failure to understand signs, fatigue, alcohol. Pedestrian: Carelessness, illiteracy, crossing at wrong places moving on carriageway, Jaywalkers

### **5.Where is the issue occurring?**

Many roads have insufficient capacity, poor sidewalks, unlimited crossings and a lack of road equipment and safety measures. - In cities, the streets are very congested and most of the bridges and culverts are old and narrow. - Highway traffic in India is heavily taxed. The tax bill on motor vehicles in India is Rs.

### **6.Why is it important that we fix the problem?**

Road safety is something important that has to be followed at all times to ensure the safety of the operators of a vehicle, passengers, and pedestrians. In fact, road traffic injuries are the leading cause of death among people aged between 15 and 29 years. Traffic rules and guidelines have to be set in place and strictly followed so that serious accidents and injuries can be averted.