**Idea Submission For ‘Student Innovation’**

**Idea Title :**

Smart Traffic Signal Management for Emergency Vehicles with Dynamic Prioritization and Safety Control

**Idea Description :**

This idea aims to enhance urban traffic systems by developing a smart solution that detects the presence of emergency vehicles at traffic signals and dynamically prioritizes which vehicle should proceed when multiple emergency vehicles are approaching. The system also minimizes the need for emergency vehicles to manually bypass signals, reducing the risk of accidents and ensuring faster response times.

**Abstract Summary :**

Emergency vehicles often face delays at traffic signals or manually bypass signals, which can increase the risk of accidents. While current systems focus on detection, they do not address the challenge of multiple emergency vehicles approaching the same intersection. This project proposes a smart traffic management solution that includes a dynamic prioritization algorithm to rank vehicles based on urgency, proximity, and traffic conditions. Additionally, the system reduces the risk of crashes by minimizing the need for emergency vehicles to manually bypass signals, improving both safety and response efficiency.

**Technology Bucket :**

CNN-DL

**Idea Template :** PDF, PPT max 5MB

**Other Document(Optional) :**

**Youtube Link(Optional) :**