DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

PROJECT PROPOSAL

1. Project Title: -

SmartClear: AI-Enhanced Traffic Management for Emergency Services

2. Project Scope: -

Includes

Real-Time Traffic Analysis: AI algorithms analyze live traffic data for dynamic emergency vehicle route optimization. Integration with cameras, sensors, and historical data ensures accurate predictions.

Emergency Vehicle Priority System: Development of a priority system granting precedence to emergency vehicles. GPS and communication integration relays priority signals to traffic lights and intersections.

Communication Infrastructure: Robust network facilitates real-time information exchange between emergency vehicles and management centers. Integration with existing communication protocols ensures seamless coordination.

Not-Includes:

Civilian Traffic Optimization: The project will not focus on optimizing traffic for non-emergency vehicles unless it directly aids emergency response efforts.

Non-Emergency Service Integration: The scope excludes the integration of traffic management features for non-emergency services or general public use.

Hardware Development: The project does not encompass the creation of new hardware devices; it will leverage existing infrastructure and technologies.

3. Requirements: -

- Hardware Requirements
  1. A computer with good processing power
  2. Minimum of 16Gb of memory
  3. GPU for faster training

- Software Requirements

1. Deep learning framework:
   Tensor-Flow
   Keras
   PyTorch
2. Language:
   Python

STUDENTS DETAILS

Name	UID	Signature
Ashmandeep Kaur	21BCS6284	
Tarushi Sandeep Gupta	21BCS6280	
Shivani	21BCS6285	

APPROVAL AND AUTHORITY TO PROCEED

We approve the project as described above, and authorize the team to proceed.

Name	Title	Signature (With Date)