# Innovation Proposal Format

## Title of proposed idea/innovation

Anti-Animal Accident System for Parked Vehicles

## Briefly explain newness/uniqueness of the innovation (Maximum 1500 characters allowed)

This innovation introduces a smart, animal-friendly system that detects and alerts the presence of animals resting under parked vehicles—a problem commonly overlooked. Unlike existing security systems, this solution integrates motion detection, audio-visual alerts, and a water-based deterrent system to gently move animals away without harm. The uniqueness lies in its multi-sensor approach and the use of an electric water sprayer, combined with a user-friendly LCD status display, all powered and controlled by an Arduino microcontroller. The system is cost-effective, safe for animals, and suitable for any vehicle type.

## Concept & Objective (Maximum 1500 characters allowed)

The objective is to prevent accidental injuries to animals that rest beneath parked vehicles. The system is designed to sense motion under the vehicle using ultrasonic or PIR sensors. When animal presence is detected, corresponding LED indicators light up, a buzzer alerts the driver, and a gentle water spray activates to drive the animal away. The LCD screen provides real-time sensor feedback to help the driver take informed action before starting the vehicle. The overall concept emphasizes both safety and compassion, offering a low-cost, practical solution for a common issue in urban and rural areas.

## Specify the potential areas of application in industry/market in brief (Maximum 1500 characters allowed).

- Private and public vehicle fleets (cars, buses, trucks)  
- Railway stations and yard areas  
- Smart parking facilities and automated garages  
- Municipal and garbage collection vehicles  
- Agricultural machinery (tractors, harvesters)  
- Animal welfare organizations and shelters  
- School buses, ambulances, and transport services in areas with stray animals

## Briefly provide the market potential of idea/innovation (Maximum 1500 characters allowed)

With increasing concerns around animal welfare and road safety, this innovation has high market potential, especially in countries with significant stray animal populations. It addresses a widespread and often neglected issue, making it suitable for adoption by municipalities, transport services, private vehicle owners, and large fleets. The cost-effective nature of the solution and its compatibility with existing vehicle structures further enhance its scalability. There is also potential for commercial production and OEM integration in vehicles to meet upcoming safety and ethical standards in transportation.