

# OVERVIEW

AI-IoT in Smart Cities: Traffic  
Management for Sustainability



# OVERVIEW

-  Key Idea: Real-time data + AI  
= Smart traffic flow
-  Examples: Adaptive traffic signals, self-driving cars, predictive maintenance
-  Impact: Less congestion, lower emissions, safer roads



# KEY CHALLENGES

Challenges to smart mobility systems

-  Data Privacy: Sensitive location + behavior data must be protected
-  Digital Divide: Infrastructure gaps can exclude some communities
-  Solution: Inclusive planning + strong cybersecurity = responsible smart city AI

# TRAFFIC FLOW

## AI and IoT in Smart Cities: Transforming Traffic Management for Urban Sustainability

### Autonomous Vehicle Navigation

AI enables self-driving cars to navigate roads



### AI-Powered Traffic Signals

AI adjusts traffic lights based on IoT sensor data



### Fleet Predictive Maintenance

AI uses IoT data to detect vehicle issues early



### Accident and Hazard Detection

AI analyzes CCTV and sensor data for hazards