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# *Autonomous Emergency Response & Preparedness Agent*

## **Problem Focus:**

Lack of Emergency Preparedness in Residential Societies

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# *PROBLEM STATEMENT*

- Residential societies lack a structured and automated emergency preparedness system
- Emergency response relies heavily on manual decision-making and human intervention
- Delayed response leads to panic, confusion, and increased risk to life and property
- Absence of real-time guidance and coordinated actions during critical situations

# *PROPOSED SOLUTION*

A multi-agent autonomous AI system designed to handle emergencies end-to-end by:

- Detecting emergency situations in real time
- Automatically assessing the type and severity of the emergency
- Executing predefined response actions without human delay
- Providing real-time evacuation and safety guidance to residents
- Learning from incidents to improve preparedness for future emergencies



# AGENTIC AI ARCHITECTURE

## How the System Works (Agentic AI Flow)

Emergency Trigger



Detection Agent (Identifies emergency type & severity)



Decision Agent (Plans optimal response strategy)



Sanity Check Agent (Validates safety and correctness of actions)



Action Agent (Sends alerts, initiates responses)



Guidance & Preparedness Agents (Resident guidance + future readiness)

## Key Highlights

- Fully autonomous decision-making
- Zero manual intervention after emergency trigger
- Built-in sanity checks to ensure safe and reliable actions



# IMPACT & ADAPTIVE BEHAVIOR

## Autonomous & Adaptive Emergency Response

Emergency Type	Severity	Autonomous Action
Fire	High	Immediate evacuation + emergency services alert
Medical Emergency	Medium	First responder notification + admin alert
Gas Leak	High	Instant evacuation + utility shutdown

### Impact

- Significantly faster emergency response times
- Reduced panic and confusion among residents
- Enhanced overall safety and preparedness of residential societies



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*Thank You*