

# RES(Q)BIT

Team Onlybits  
IBM Qiskit Fall Fest

## DISASTER PREDICTION & ROUTE EVALUATION SYSTEM

Quantum-Enhanced AI for Early Disaster Detection and Smart Response Planning

### WHY EARLY PREDICTION IS IMPORTANT

- Saves lives by providing time to evacuate
- Reduces economic losses



### CORE INPUTS



Weather Data



Seismic Activity



Satellite Imagery



Historical Data

### THE NEED FOR QUANTUM-SPEED RESPONSE

- **Classical Data Overload**  
Processing the vast-real-time input from multiple sources
- **Inefficient Optimization**  
Encode as a QUBO problem
- **Adaptive Strategy Lag**  
There is a dire need for a system that can Instantaneously simulate multiple crisis scenarios

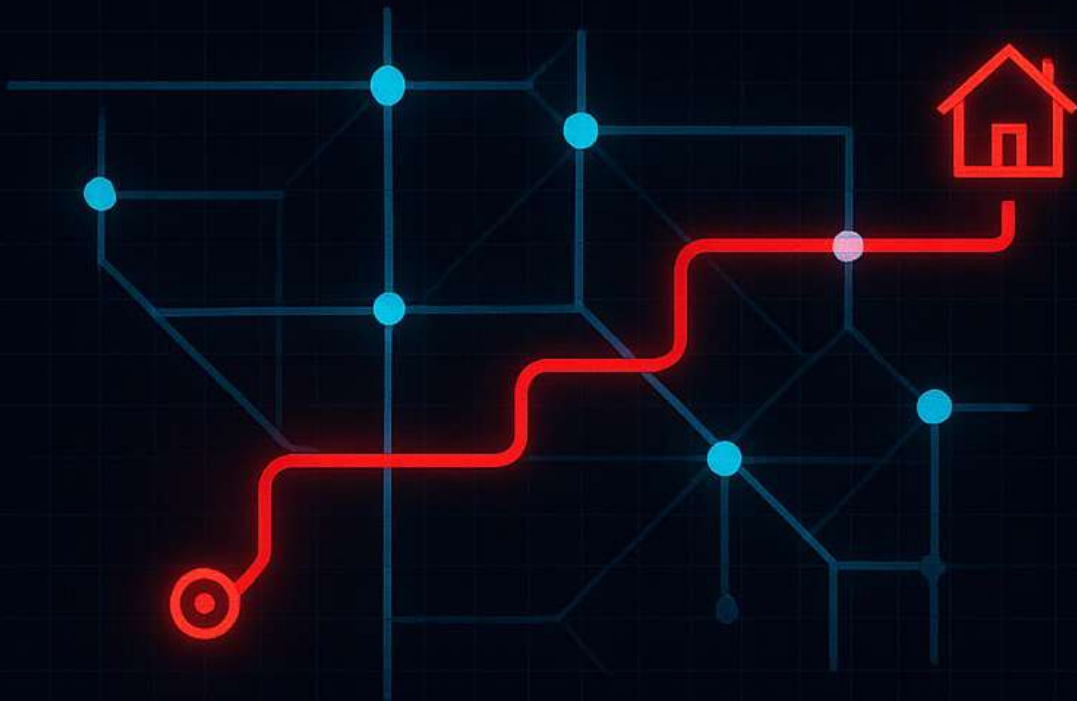
### QUANTUM IMPLEMENTATIONS

- Faster computation
- Improved accuracy

HACKATHON PROJECT

# QUANTUM NAVIGATION

SMARTER PATHS, FASTER RESCUE — POWERED BY QUBITS



## TECHNOLOGY STACK

- IBM QISKIT OPTIMIZATION
- QAOA
- PYTHON
- NETWORKX + PLOTLY

## EXPECTED IMPACT

- FASTER EVACUATIONS
- REDUCED CASUALTIES
- BETTER RESOURCE USE

## FUTURE SCOPE

- INTEGRATE REAL-TIME IOT AND SATELLITE DATA
- EXPAND TO LARGE-SCALE CITY NETWORKS
- HYBRID CLASSICAL-QUANTUM DEPLOYMENTS