



Integrating Fire Alarm System to Mobile Phones for Guided Evacuation

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Introduction

Our **Fire Safety System** addresses the critical need for effective evacuation guidance during fire incidents. It aims to provide personalized evacuation guidance tailored to each user's location.

Problem Statement

Traditional alarms sound the alarm but leave occupants to navigate through smoke without clear direction, leading to potential **confusion and delay in evacuation**.

Constraints

- Network Dependency.
- Building layout and construction materials.
- Identify location for elders, people with special needs and kids.
- Determining the density of individuals in a given area.

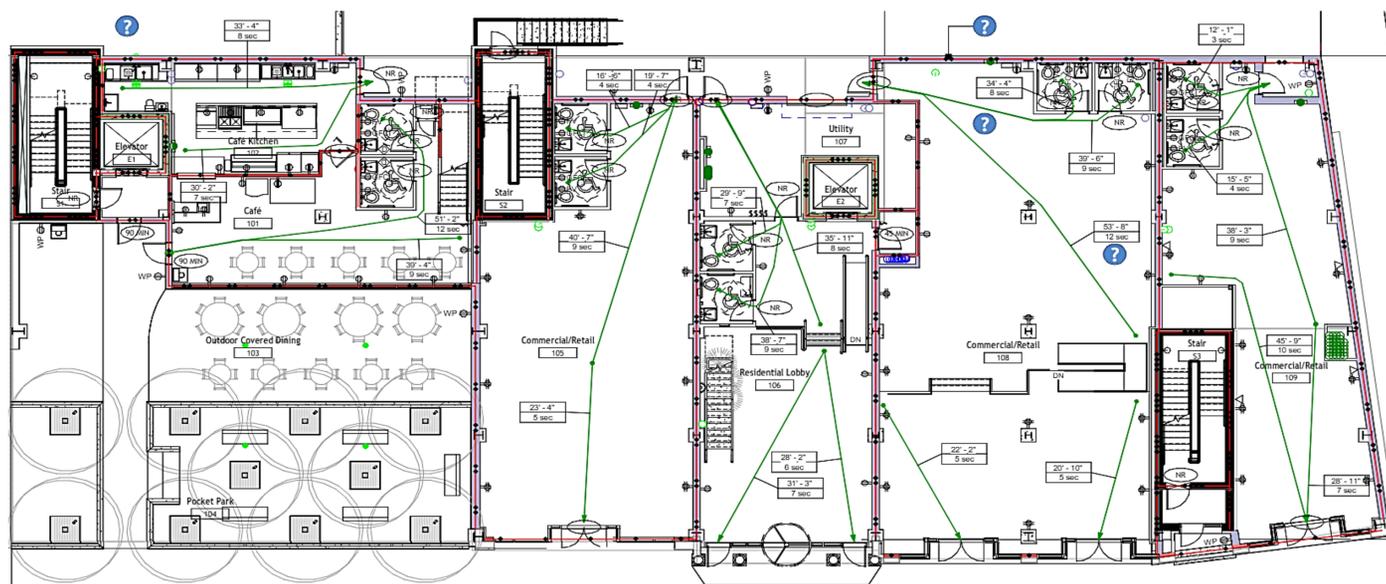
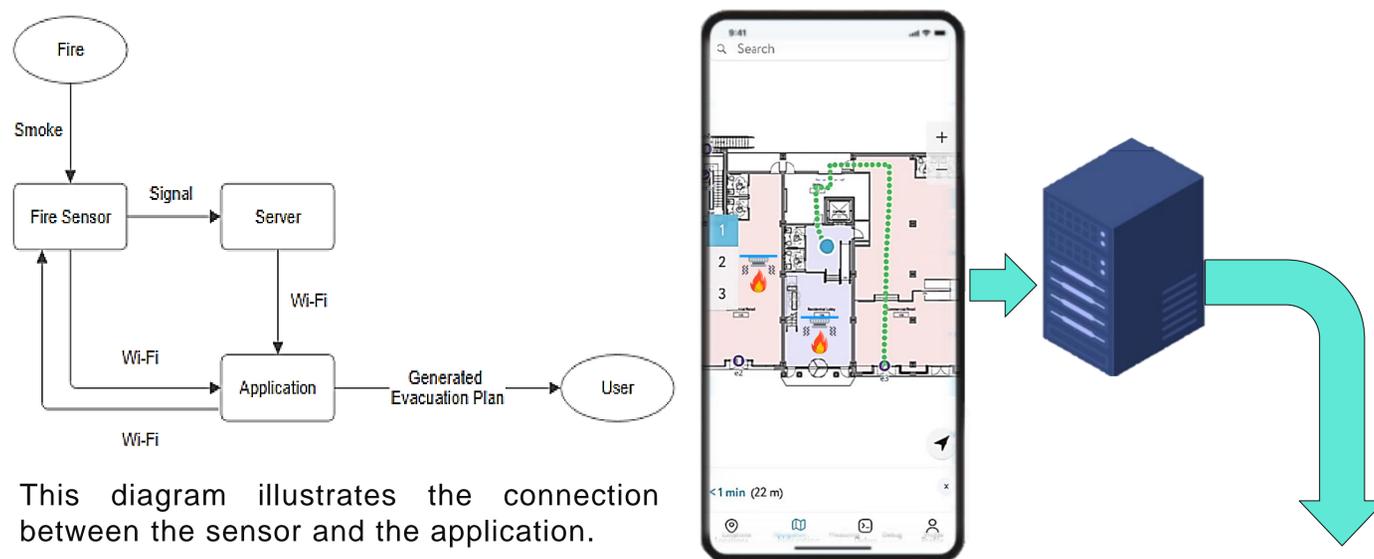
Target Specifications

- Flame sensors ranges from **1-2 meters**.
- System Reliability will be **24/7** through UPS.
- Time between detection and sending evacuation plan. **less than 5 seconds**.
- Tailored to the individual's current location.

Project Impact

Providing real-time guidance and personalized evacuation routes, which aims to minimize the risk of injury and loss of life during fire incidents.

Methodology



The green lines depict the various evacuation routes available for occupants to reach safety during an emergency for **specified floor**.

Specification Confirmed

Tests confirmed **sensor accuracy** in detecting fire incidents and providing timely alerts. The app's intuitive interface guided users to safety effectively.

Conclusion

Our **Fire Safety System** successfully met all specifications, providing reliable and user-friendly evacuation guidance. Its thorough testing and validation ensure its effectiveness in real-world scenarios, promising enhanced fire safety for all users.

Future Work

Identify location for **elders**, people with special needs and kids. Also, support **IOS software**.

Acknowledgements

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