

## Real-Time Road Obstacles Detection and Alerting System (Using Computer Vision)

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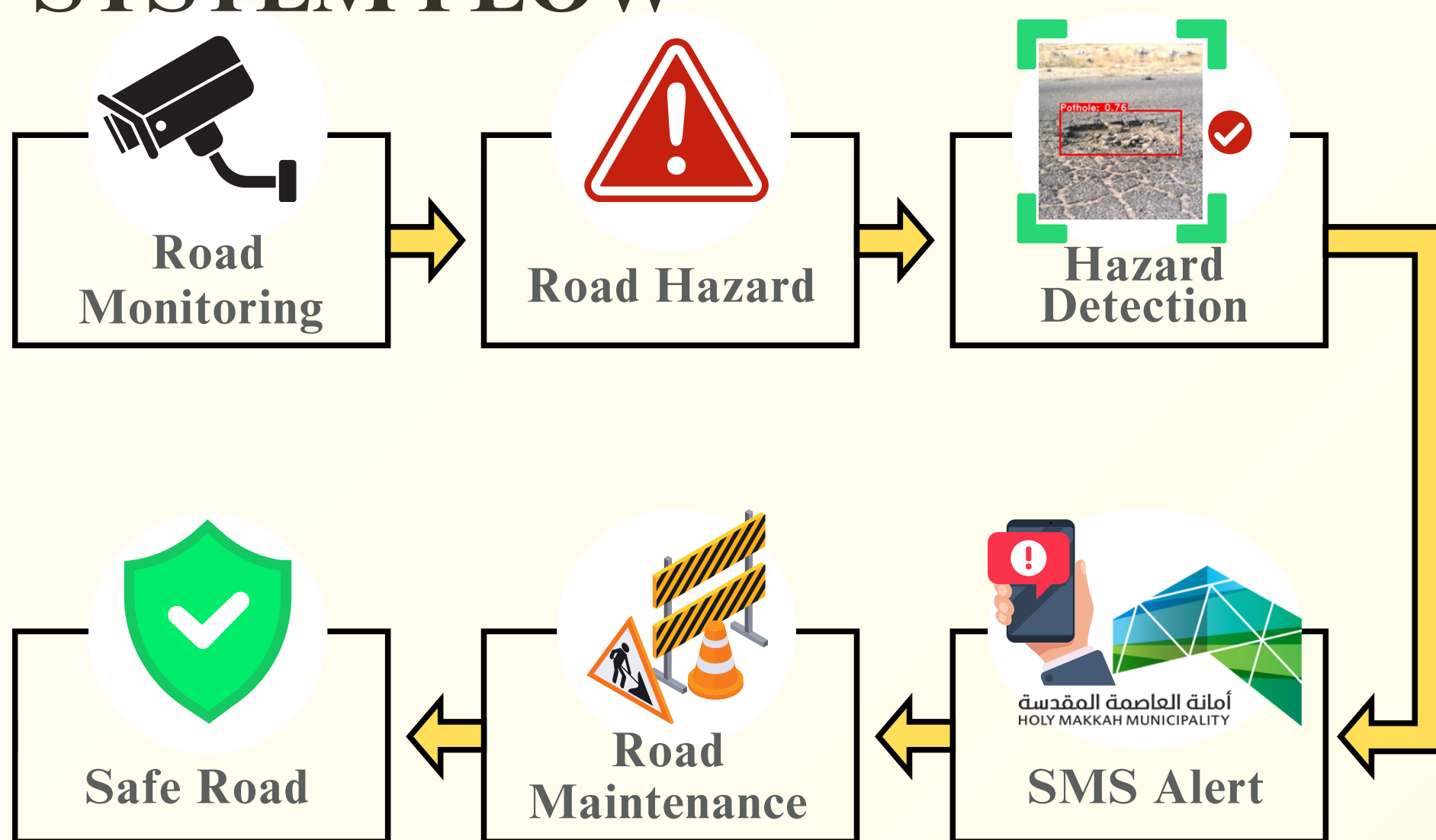
### ABSTRACT

Road accidents in Saudi Arabia often result from driver error, including the failure to detect obstacles like potholes. To address this issue, we propose a real-time road obstacle detection system that uses computer vision and artificial intelligence. By analyzing camera data, our system can quickly identify potential hazards and alert the authorities. By reducing accidents and minimizing risks associated with damaged roads, our system can make a significant impact on Saudi Arabia's roads.

### OBJECTIVES



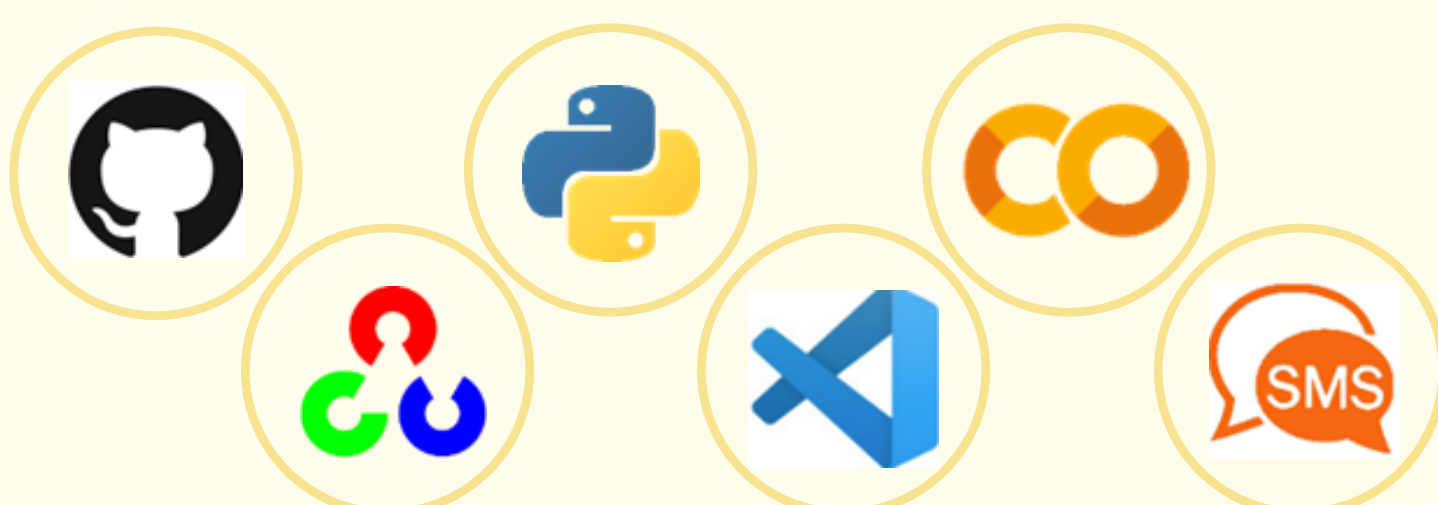
### SYSTEM FLOW



### DATASET

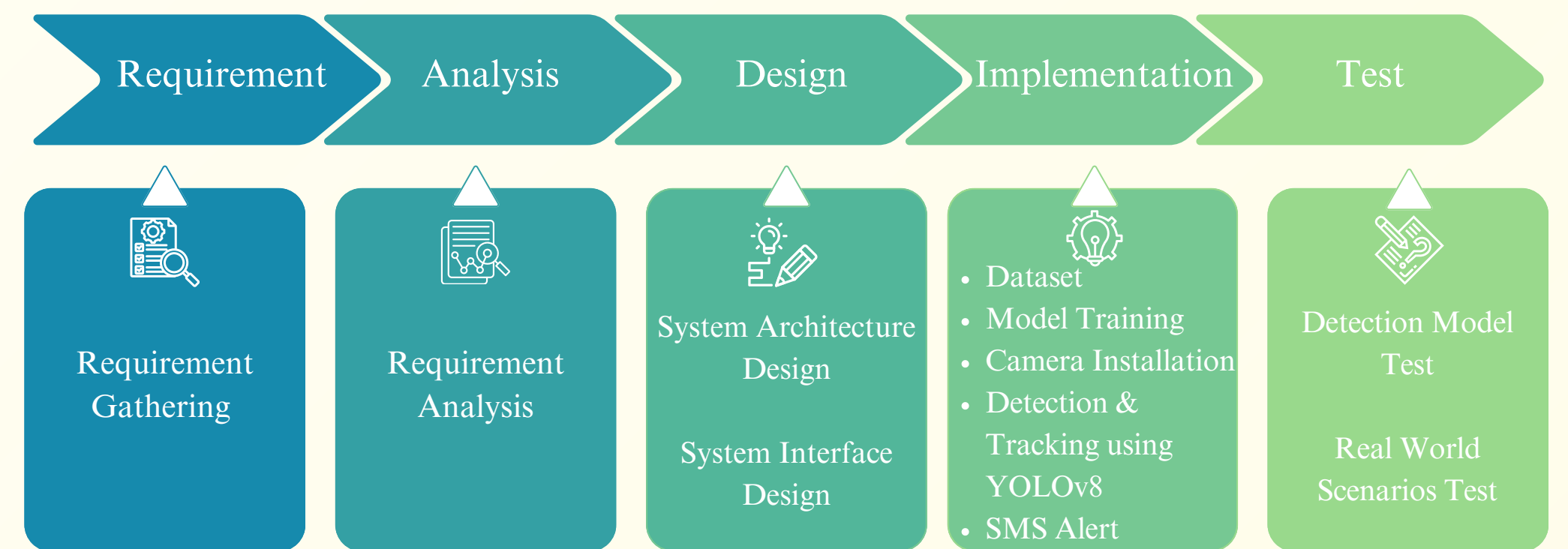


### TOOLS

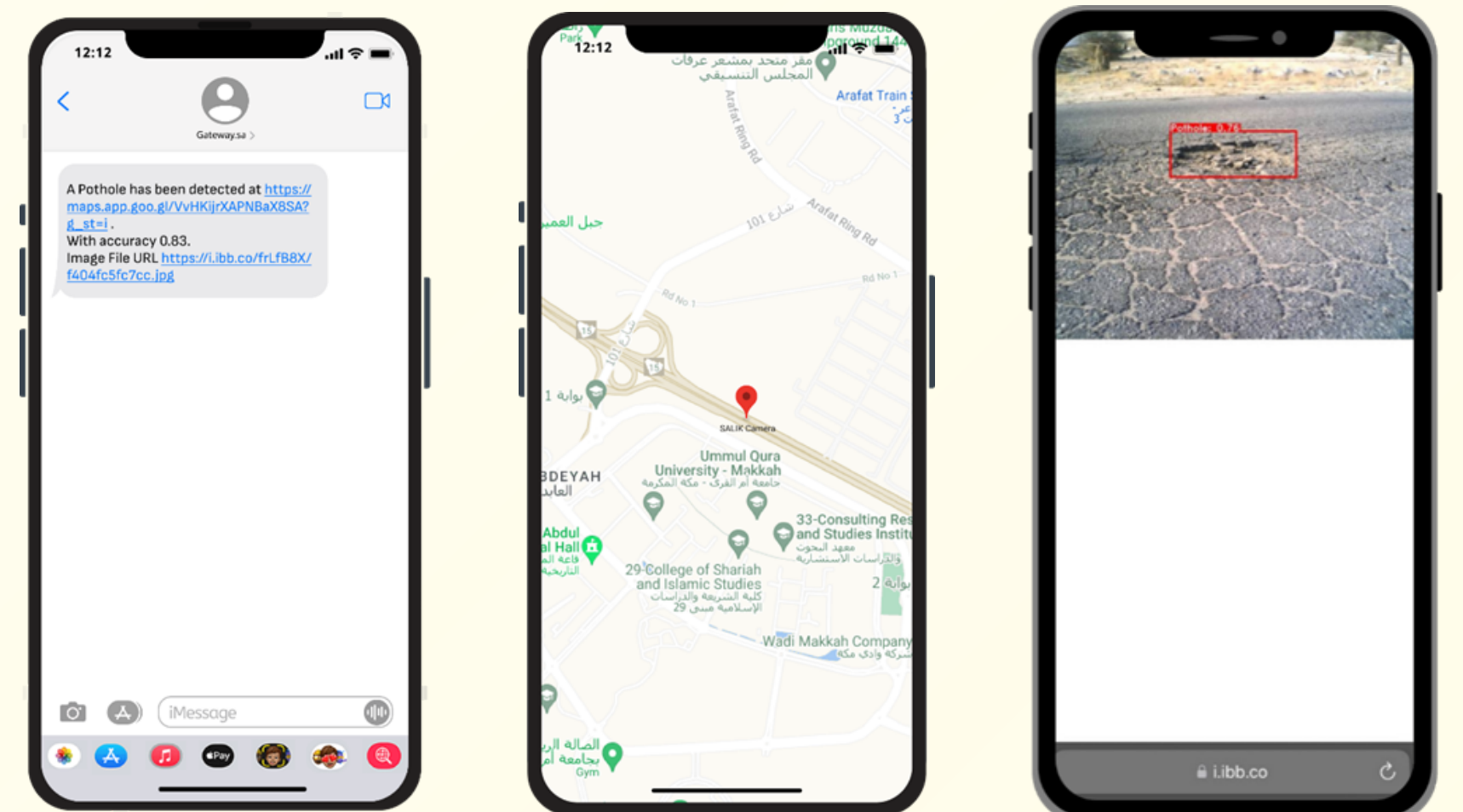


### METHODOLOGY

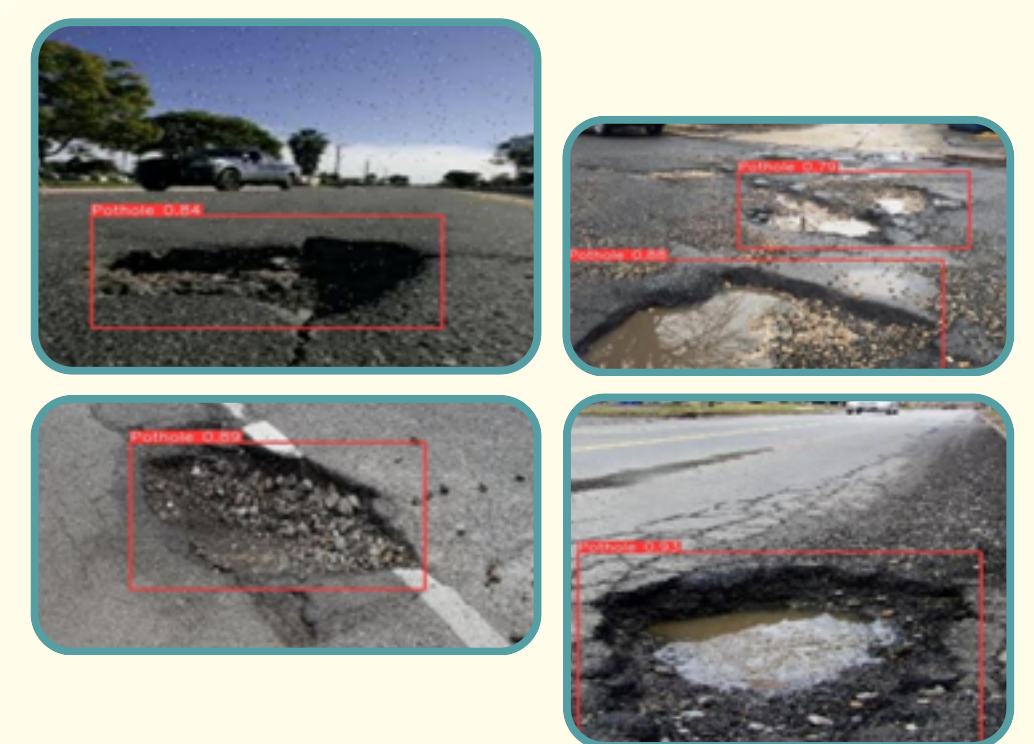
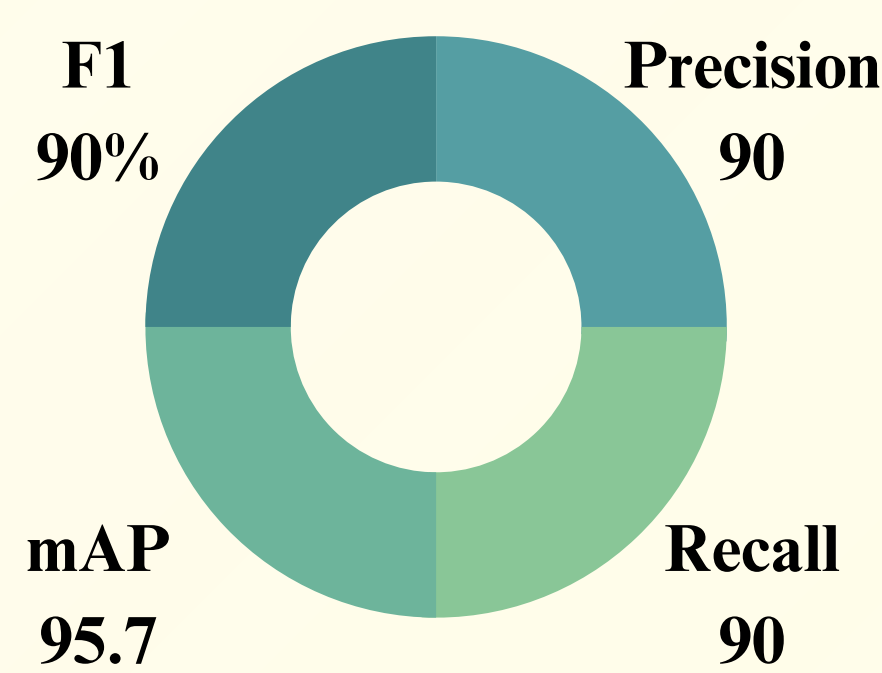
#### Waterfall Methodology



### INTERFACES



### RESULTS



### FUTURE WORK

- SALIK will be trained to detect and report other road obstacles.
- Detections and messages will be stored for future analytics.
- Real-time alerts about road conditions will be sent to drivers through integrated mapping and navigation.

### CONCLUSION

SALIK is a two-part system, with one focused on spotting road obstacles and the other on swiftly reporting them. Our model, trained with cutting-edge YOLOv8 technology, has delivered highly promising outcomes. SALIK holds the key to enhancing road safety and taking it to the next level.

CONTACT

