NANYANG TECHNOLOGICAL UNIVERSITY
SINGAPORE

School of Computer Science and Engineering
College of Engineering

VIRTUAL EYE

Helping the visually impaired map the real world

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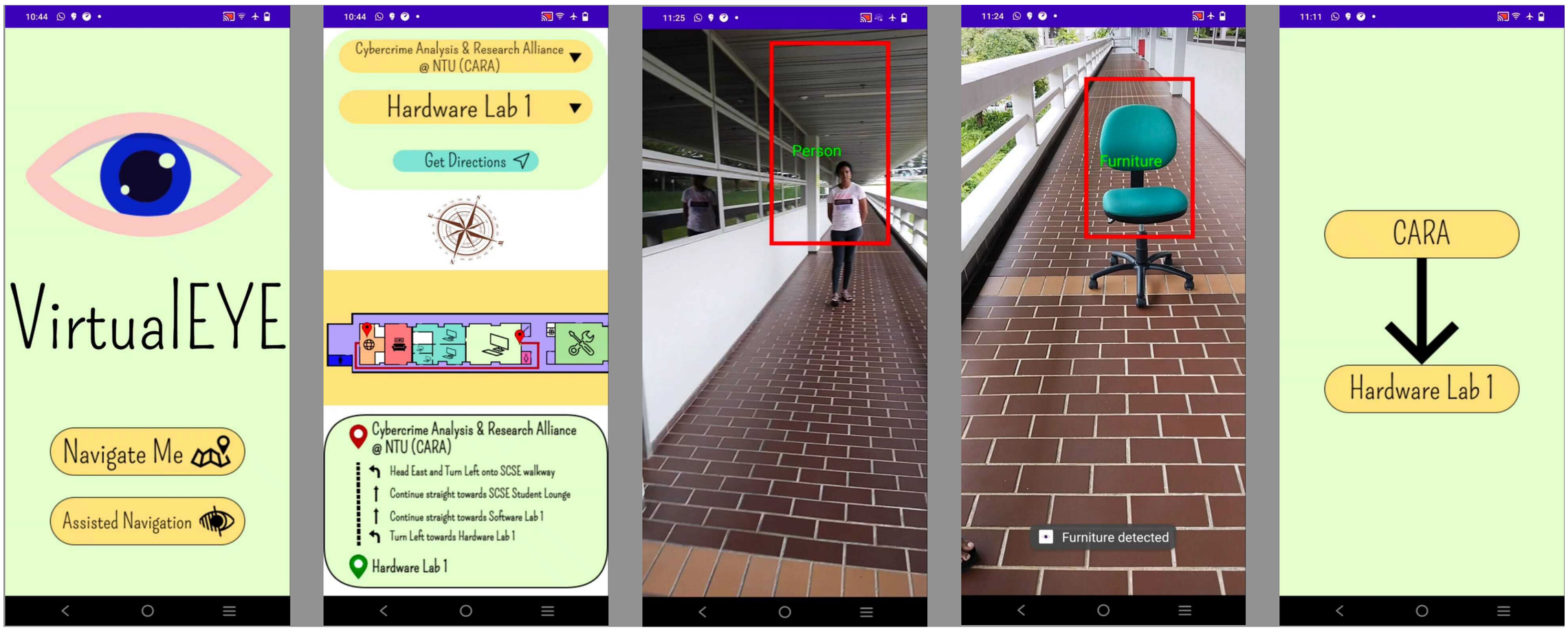
VirtualEYE: Android Application



Project Objectives:

The goal of this project is to create an indoor navigation system using an Android app and a cloud-based server. The technology accommodates both visually impaired and sighted users and communicates with Bluetooth Low Energy beacons to facilitate navigation. The server can calculate pathways, distances, and directions in real time. For navigation, the system provides obstacle detection, tactile and audio feedback, an interactive map, and textual directions. The goal of this project is to improve indoor navigation for users, hence increasing efficiency and safety.

VirtualEYE Features

- Instruction inputs via user interface, motion, or voice
- Obstacle Detection
- Vibration and Audio feedback
- Interactable Map with markers, navigation route and directions.

Testing VirtualEYE