**ABSTRACT**

In the retail industry intelligent operations like top customer recognition, minimising losses due to shoplifting, emergencies and fraud is key to success.This application integrates to the cctv camera and the deep learning algorithms used to process this images , automated intrusion detection alerts, real-time fire alerts,smart checkout, blacklisted customer alerts, and potentially fraudulent point of sale (POS) transactions are main features.

Dynamic Pricing with machine learning, the price of certain products change over time through an algorithm that considers a variety of pricing variables. Product locator using image search ,search and locate a particular product in the store using image search . The system will collect all available product locations from the live videos from multiple cameras.This is a useful feature for finding misplaced products POS user fraud detection , it record POS transaction details on screen as an overlay on video images to reduce fraudulent transactions and employee fraud .To improve the ease and speed of transaction searches face of customer is used to search for customer dispute cases. Smart Checkout System by using self service kiosk users can generate bills by showing products to linked camera, using Google vision products will get identified .Count customers and Queue detection will detect long queues at the checkout in real time and open new lanes to speed up and improve the customer experience, and reduce abandoned purchases. Customer recognitionPremium customers and blacklisted customer alerts can also provided .