46COSC023W – Final Project Report

iTravels

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Abstract

Baggage systems are a key measure of airport service excellence. This decreases the airport operator's preferability. A BHS's purpose is to prevent and eliminate mishandling by determining possession of each bag at various stages of the baggage chain. Increase passenger satisfaction overall. Reduce the possibility of luggage fraud.

Colombo Bandaranaike International Airport has been awarded a three-star rating for its amenities, comfort, cleanliness, shopping, food and beverage options, and employee service. There is insufficient check-in space, and the waiting mechanisms are haphazard. The key asset is the staff's dedication to providing exceptional customer service. Even Sri Lankan Airlines, which is in charge of the entire baggage operation, including the recovery and return of lost luggage to passengers. BIA assists travellers in locating the appropriate airline contact to resolve issues.

The existing baggage system, which uses barcodes, is prone to failure, as indicated by the 15% failed scan rate. By replacing the barcode method with an RFID tagging and tracking technique, successful luggage identification and routing would climb to near 100%.

RFID for baggage monitoring gives data that allows airlines to track the luggage effectively through all airport operations. The system improves the efficiency and accuracy of luggage loading for departing aircraft significantly. That is why iTravels was created based on RFID technology in order to promote it as the first step in digitalizing current airport systems to contemporary, more efficient ones. Aside from the baggage tracking system, iTravels will introduce an efficient yet simple inquiry handling system, primarily with minor features such as third-party contacting system, personalized reminders, online check-in, and the ability to manage travel experiences by storing boarding details with travel history.

The designed solution incorporates a mobile and web-based system that accurately handles the process's components. The produced solution was then examined by domain experts and technology specialists to ensure that the built system meets the intended purpose.

Keywords – Baggage handling, Baggage tracking, Make an Inquiry, Bandaranaike International Airport, RFID tags.