

## **Prototype of New Reliable Airport Luggage Tracker System**

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### **Abstract**

Nowadays, the complaints of air passengers about mishandling of luggage are highly noticeable, where the number of passengers is on the increased. In this respect, several research works have been conducted using different technologies, such as Radio Frequency Identification (RFID), Global Positioning System (GPS), and Global System for Mobile Communication (GSM), mobile applications, smart watches and QR code. However, none of them safely and effectively considers reclaiming passengers' belongings from the airport baggage handling carousel without the need for human intervention, which in turn increases the number of mishandled bags. Therefore, in this paper we propose a new Airport Luggage Tracker System (ALTS) in order to provide a reliable solution compared with the research works found in the literature. A prototype system based on the proposed design is successfully implemented and tested using Arduino UNO, RFID technology and website application (check-in and check-out at departure lounge and arrival lounge, respectively).

Note: This article is based on a Final Year Project. Authors 2, 3, 4 and 5 are KCST students. Dr. Omar Khattab, their supervisor, is Assistant Professor, Department of Electronic and Communications Engineering