6COSC023W –Final Project Report

HUMAN COUNT AND CROWD PREDICTION IN PUBLIC TRANSPORTATION

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Abstract

The issue of overcrowding and uncertainty about transportation arrival times and crowd levels in public transportation causes people to seek alternative modes of transportation. To address this, our solution introduces an IoT device to provide real-time information on the number of passengers and crowd prediction in public transportation, as well as periods of expected crowding. The methodology used involves implementing the IoT device to count the number of passengers on a bus and integrating this information with a software platform to provide the necessary information to recipients. The main results show that this system can help recipients estimate waiting time periods, use public transportation in less crowded time slots, and plan their tasks efficiently with live location and arrival time information. The system can also help reduce overcrowding in public transport and enhance the efficiency of humans by reducing time wastage. The research concludes that this software can provide valuable information to frequent public transportation users to make efficient transportation decisions, ultimately resulting in a reduction in human traffic in public transportation and a smoother commuting experience.

Key words: *public transportation, IoT device, time wastage, software platform*