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Live Streaming Fisherman Border Security System Using Radio Frequency Technology

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Abstract

The issue of border cross brutality is a significant problem that arises due to the difficulty in identifying water borders between neighbouring nations. This challenge often results in fishermen coming under attack by opposing fleets. Fishermen's lives are at risk as they may face gunfire or abduction. This problem requires an urgent solution to safeguard the lives of these fishermen and ensure better border security. To address this issue, an embedded system has been developed that utilizes advanced technology to alert border authorities of fishermen's whereabouts. This device uses Global Positioning System and radio frequency technology to track the location of the fishermen. When the fishermen are in danger, they can use a built-in panic button that triggers a buzzer sound, which alerts the authorities. This system is designed to ensure quick response times and ensure the safety of the fishermen. The embedded device also includes a feature that enables it to record the surroundings when the panic button is pressed. This feature ensures that the coastal guards have access to live footage of the situation and can make informed decisions. The coastal guards can receive live alerts via their application, which enables them to take immediate action. This technology-based solution is a significant step towards safeguarding the lives of fishermen and improving border security. It is hoped that this device will help to reduce the incidents of border cross brutality and create a safer environment for the fishermen. Overall, the development of this embedded system-based device is an important step towards addressing the challenges of border cross brutality and ensuring the safety of those who risk their lives every day to make a living.

Key Words: Embedded system, Global Positioning System(GPS), Radiofrequency technology, Border cross brutality

I. Introduction

The fishermen border security application has an innovative and practical solution to enhance border security in coastal areas. By utilizing Radio Frequency technology and live streaming capabilities, the application can provide real-time monitoring and tracking of fishing boats and vessels in the area. To make the monitoring more effective, live streaming capabilities can be added to the system, allowing for real-time video and audio feedsto be transmitted from the boats to a central monitoring station. This would enable security personnel to visually inspect each boat and identify any suspicious activity or behaviour. The system can also be equipped with sensors to detect and track other vessels, such as those engaged in smuggling or illegal fishing activities. This data can be combined with live streaming video feeds to provide a comprehensive view of the maritime environment.

Radio Frequency techniques are used to transmit and receive information over long distances