

GPS BASED MARITIME BOUNDARY IDENTIFICATION APPLICATION FOR MOBILE PHONES

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ABSTRACT: *Fishing is one of the main income sources for those who live in the coastal areas of Sri Lanka. Since most fishing boats do not carry navigational or radio equipment, they face the danger of going beyond the Sri Lankan territory and entering into Indian waters without their knowledge. There is also a risk of locating the boats in the deep sea since there is no information communicated back to the shore about their physical locations.*

In this project an application for smart phones was developed. It has a map of Sri Lanka with the maritime boundaries, number of important locations such as coastal belt, maritime border, fishing harbors etc., has been included in the application. It uses the mobile phone's GPS sensor to identify the current location. Application was developed to display fishing harbors, current position of the boat, distance and direction from the nearest harbor. When the boat is in motion, the path of boat will be indicated on the map. Also, the application software monitors the position of the boat with respect to the maritime boundary. If the boat sails beyond the border, a warning message will display on the screen to indicate. In addition, if the Internet access is available, the current position of the boat will be notified to a ground-based station.

Keywords: Longitude, Latitude, Haversine formula, Distance between two points, Global positioning system.