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USING SPATIAL INFORMATION SYSTEM ON ARTIFICIAL REEFS POSITIONING (ARPOS) BY LKIM

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APPROVAL

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This thesis was prepared under the direction of thesis supervisor, Puan Ariza binti Nordin. It was submitted to the Faculty of Information Technology and Quantitative Sciences and was accepted in partial fulfillment of the requirements for the degree of Bachelor of Information System Engineering.

Approved by:

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Puan Ariza binti Nordin

Thesis Supervisor

Date: NOVEMBER 2, 2006

DECLARATION

I certify that this project to which it refers are the product of my own work and that any ideas or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

This research describes the development of a web-based prototype system specifically tailored to perform queries and updating of spatial datasets. Spatially enabled computing can provide situation aware assistance to web-based users by presenting the right information at the right time, place, and situation. The knowledge is assembled by combining knowledge gained about information accessed in the past with the activities planned by the user, together with other situation dependencies (e.g. location) of these activities. The datasets are provided by the Fisheries Development Authorities of Malaysia (LKIM) and the prototype is customized to the specific needs of the LKIM requirements for Artificial Reefs distribution. Currently, the enforcement officers have access to the fisheries database and location of Artificial Reefs solely from the office. Delivering these data overlaid on base maps of the Terengganu Sea to a spatially enabled with the online access and linking it to each task currently being investigated will allow for user and enforcement officers in the field to make informed decisions immediately. Proper tracking and maintenance activities for the existing artificial reefs are also required for their sustainability. It will collect and analyze artificial reefs positioning using online Autodesk Map Guide software. Data of the artificial reefs was recoded based on longitude and latitude and stored in MySql database. The information will be presented in web-based GIS map user-friendly environment. The development of the software will help to manage the information involved in the fisheries industry and as the result can increase the productivity and the quality on that particular sector.

Keywords: Spatial Information System, Spatial Data, Spatial Database, Artificial Reefs

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