

**WEATHER FORECAST AND WARNING
PORTAL FOR RURAL FISHERMEN**

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WEATHER FORECAST AND WARNING PORTAL FOR RURAL FISHERMEN

A report submitted Dean of Postgraduate Studies and Research
in partial fulfilment of the requirement the degree
Master of Science of Information Communication Technology
University of Utara Malaysia

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ABSTRAK

Nelayan menaruh kehidupan mereka di ambang maut setiap kali mereka pergi ke laut. Hal ini lebih buruk jika cuaca di laut buruk. Satu sistem ramalan cuaca dan amaran akan dapat membantu nelayan membuat keputusan yang lebih baik sebelum mereka pergi ke laut. Ini akan membantu mengurangkan kos mereka dan membantu menyelamatkan nyawa. Fokus utama kajian ini adalah untuk merancang model keperluan peramalan cuaca dan aplikasi peringatan untuk nelayan luar bandar dengan menggunakan portal. Pada akhir projek ini, portal akan dibina berdasarkan keperluan sistem. Harapan dari projek ini adalah bahawa portal perkhidmatan ramalan cuaca akan sepenuhnya digunakan oleh para nelayan luar bandar untuk merujuk maklumat berkaitan cuaca pada bila-bila masa dan di mana saja melalui aplikasi internet.

ABSTRACT

Fishermen put their lives on the brink every time they go out to the sea. This is worse if the weather at the sea is bad. A weather forecast and warning system will help fishermen make better decisions before them to go out to the sea. This will help reduce their costs and help save lives. The main focus of this research is to design a requirement model of the weather forecasting and warning application to rural fishermen by using a portal. At the end of this project, a portal will be designed based on the requirement model of this system. The expectation of this project is that the weather forecast service portal will be fully utilized by the rural fishermen to refer when they require the information about weather anytime anywhere via the Internet.

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List of Abbreviations

List	Abbreviation
Ans	Answers
ICT	Information Communication Technology
IP	Internet Protocol
ISP	Internet Service Provider
ISO	International Organization for Standardization
GPRS	General packet radio service
GPS	Global Positioning System
GOES	Geostationary Operational Environmental satellite
HTML	Hyper Text Markup Language
MMD	Malaysian Meteorological Department
NOAA's	National Weather Service
Q	Question
Resp	Respondent
RTM	Requirements Traceability Matrix
SDLC	Software Development Life Cycle
SMS	Short Message Service
SOS	Descriptions for international Morse code
URL	Uniform Resource Locator
WAP	Wireless Application Protocol
WFWP	Weather Forecast and Warning Portal for Rural Fisherman
Widget	A portable chunk of code that can be installed and executed
XML	Extensible Mark-up Language
%(52R)	Percentage of 52 respondent
%(60R)	Percentage of 60 respondent
°C	Degree of Celsius

CHAPTER ONE

INTRODUCTION

This chapter clarifies the main idea of the project, detailing the main element involved in the research. This chapter also describes the general research preparation which related to the current scenario and the basic requirement to lead the project development.

1.0 Introduction

Malaysia has grown rapidly in the field of Information and Communication Technology (ICT). The government and private sector use information technology in planning and making decisions. The internet mobile system too has grown to be an important tool in each country whether in urban or rural areas. Malaysia has more than 100% mobile penetration as advancement in technology had made it easier to use and cost less that make it a flexible tool for rural development.

While ICT is growing rapidly in our country, there are some people who are still lagging behind in ICT development, they are the rural fishermen. They still use traditional methods of weather forecasting as a guide for their daily activities, even as Malaysian Meteorology Department has prepared a variety of Internet facilities to

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