BITE DETECTOR

Thesis is presented in partial fulfillment for the award of the Bachelor of Engineering (Honours) Electrical MARA INSTITUTE of TECHNOLOGY



KARIM HJ SADIRAN
Faculty of Electrical Engineering
MARA Institute of Technology
40450 Shah Alam
APRIL 1998

Acknowledgment

In the name of Allah the all Mighty. The most Gracious, ever Merciful, who has given me the strength and ability to complete this project and report.

I would like to express my gratitude to my project supervisor En Mahmud Ibrahim for his guidances, ideas, encouragements and practice in advising from the beginning up to the end of my project. Also thanks to all my friends, lecturers, technicians for their advice, encouragement and moral support. Their contribution will be not forgotten and appreciated.

My special thanks to my spouse that understand and have condition on me who give strength and support along this project.

Finally, thank to this green campus for teaching me the meaning of life.

CONT	CONTENTS			PAGE NUMBER	
	Ackno	wledgment		i	
	Abstra	ect		iv	
	Object	ive		v	
Chapt	er 1				
	1.0	Introduction		1	
	1.1	Design Specifications		2	
Chapter 2					
	2.0	Rod Design Consideration		3	
	2.1	Design Block Diagram		4	
	2.2	Material Used		5	
	2.3	Detector Rod Design		6	
	2.4	Mechanical Detection		7	
	2.5	Detector Operation		8	
	2.6	Joint System		9	
Chapt	er 3				
	3.0	Detector Design Block Diagram		10	
	3.1	Circuit Diagram		11	
	3.2	Power System		12	
	3.3	Component Chosen		13	

Abstract

This project is to design an electronic bite detector fishing rod. The detector is intended to be integrated into commercially available fishing rod. The electronic bite detector fishing rod, without any other additional equipment, will enable the angler to receive detect signal of fish bite even in a very poor light condition. The design will not change the original characteristic of the rod.

1.0 Introduction

Angling is probably one of the most popular pastime and sport in Malaysia. The 'GP Joran' introduce by 'Berita Harian' lately showed the popularity of the sports, which attracted hundreds of anglers in every competition held. However the fact remains that as high as 80% of the fish are caught by 20% of the angler.

The problems of the poor catch are mainly due to environmental pollution that reduce the fish stock, inexperience angler and very poor angling techniques. The ability of an angler to catch fish is very much dependent on his equipment, his bait, and his technique. The most important of this ability is to detect and strike when the fish is biting. Failure to detect fish bites means losing the opportunity to strike and land the fish. This failure increases during the time when the fish bites are most prolific, especially at dusk and night when the visibility is very poor. The design of common bite detection mechanism has one thing in common. The system has to be attached to the rod, which require additional equipment and accessories, which is very convenient if the fishing to be done into the deep jungle or in a small boat in the middle of the sea.

The best way to incorporate bite detector into a real rod is by using a built in system. With this system the angler does not require additional accessories. In this type of system the bite detector and alarm device are inside the rod. As long as the detector does not