

**IMPROVEMENT OF AUTOMATIC SIGNAL IDENTIFICATION
DEVICE FOR SILAT BODY PROTECTOR**

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ABSTRACT

Pencak silat is one of the sport activities that involved two persons fighting each other without any weapons and abiding the rules and regulation. It is for the justice of the game and for the safety of the fighters as well. As the movements of the fighters are fast to obtain a point, an error and redundant in giving the point can be occur. This project is aim to improve the automatic signal identification device that used for Silat body protector. The main sensor used in this case is a commercially available flexi force and custom-made signal conditioning hardware to meets the requirements of the next stage. The new version of the device is developed using FlexiForce force sensor and Radio Frequency module as an interfacing device system. The invention of the signal identification device inside the silat body protector is a low cost wireless system and friendly user where it is really helpful to detect the kicks and punches that been made and marks will be given according to it.

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CHAPTER 1

INTRODUCTION

1.0 BACKGROUND

Silat was practiced by native people in their struggle against their colonial rulers. With the withdrawal of the latter, silat gradually turn into a cultural activity and was used for ceremonial and recreation purpose. This traditional art form had since been modified into a structured competitive sport. Silat can be definition as a game that is an art that using intelligent and skilful to attack and defensive [1].

This art or self-defense is indigenous to the ethnic Malays and has its origins in South East Asia, dating as far back as the 13th century [2]. This traditional art form had since been modified into a structured competitive sport. The sport's world controlling body, the International Pencak Silat Federation includes member countries such as the US, Japan and many European nations [3].

In silat match, a point are rewarded for toppling an opponent, successful defensive blocks, and offensive punch and kicks to the chest, abdomen and flanks, leg sweeps and throws [3]. Silat has its own unique and advantages compared with other martial arts.