

A STUDY ON PHYSICAL AND PERSONNEL SECURITY  
IMPLEMENTED IN MILITARY MARRIED QUARTERS

BY

NOR ISMAN BIN IDRIS

A dissertation submitted in fulfilment of the requirement for  
the degree of Master of Protective Security Management

Kulliyyah of Information and Communication Technology  
International Islamic University Malaysia

OCTOBER 2021

## **ABSTRACT**

Safety and security is an important aspect for every living. It is one of the 7 basic human needs according to Maslow (air, water, food, shelter, safety, sleep and clothing). The main aim of this study is to examine the influence of physical security, personnel security, security management system-resident satisfaction and security management system-crime prevention on the safety of military married quarters. Security management system consist of three main components which are people (personnel security) which is cover in this study, technology (physical security) also cover in this study and proces such as policies and procedures are not cover in this study. The study involved 350 officers from the tri-services (Army, Navy and Air Force) from 7 Military Married Quarters in Kuala Lumpur which are RKAT Uthant, Desa Wangsa Keramat, Desa Pasifik, Desa Setiawira, Desa Tunku Mariam, Pangsapuri ATM and Kelumpok Nuri. The data was collected through questionnaire survey and analysed by Statistical Package for Social Science (SPSS). The relationship between independent variables which are physical protection, personal protection, security management system-resident satisfaction and security management system-crime prevention and dependent variable which is safety in military married quarters were analysed. This study found physical protection, personal protection, security management system-resident satisfaction and security management system-crime prevention as a factor that influenced the safety in Military Married Quarters. According to the multiple regression analysis every independent variables had a negative relationship with dependent variables. Finally from the study the role of the residents' association is very important to govern the guarded neighborhood, and they should play a significant role in order to keep their residents safe and secure from any crime.

## ملخص البحث

السلامة والأمن جانب مهم لكل حي. إنه من بين الاحتياجات الإنسانية الأساسية السبعة وفقًا لماسلو (الهواء والماء والغذاء والمأوى والأمان والنوم والملابس). الهدف الرئيسي من هذه الدراسة هو فحص تأثير الأمن الجسدي، وأمن الموظفين، ونظام إدارة الأمن - رضا المقيمين ونظام إدارة الأمن - منع الجريمة على سلامة الأحياء العسكرية المتزوجة. يتكون نظام إدارة الأمن من ثلاثة مكونات رئيسية وهي الأشخاص (أمن الأفراد) والتي تم تغطيتها في هذه الدراسة، كما تغطي التكنولوجيا (الأمن المادي) في هذه الدراسة ولا تغطي هذه الدراسة إجراءات مثل السياسات والإجراءات. شملت الدراسة 350 ضابطًا من الخدمات الثلاثية (الجيش والبحرية والقوات الجوية) من 7 أحياء عسكرية متزوجة في كوالالمبور وهي RKAT Uthant و Desa Wangsa Keramat و Desa Pasifik و Desa Setiawira و Desa Tunku Mariam و Pangsapuri ATM و Kelumpok Nuri . تم جمع البيانات من خلال الاستبيان وتحليلها بواسطة الحزمة الإحصائية للعلوم الاجتماعية. (SPSS) تم تحليل العلاقة بين المتغيرات المستقلة وهي الحماية المادية والحماية الشخصية ورضا المقيمين في نظام إدارة الأمن ونظام إدارة الأمن - منع الجريمة والمتغير التابع وهو السلامة في الأحياء العسكرية المتزوجة. وجدت هذه الدراسة الحماية الجسدية والحماية الشخصية ورضا المقيمين في نظام إدارة الأمن ونظام إدارة الأمن ومنع الجريمة كعامل أثر على السلامة في الأحياء العسكرية المتزوجة. وفقًا لتحليل الانحدار المتعدد، كان لكل متغير مستقل علاقة سلبية مع المتغيرات التابعة. أخيرًا من الدراسة دور جمعية السكان مهم جدًا في إدارة الحي الخاضع للحراسة، ويجب أن يلعبوا دورًا مهمًا من أجل الحفاظ على سكانهم سالمين وآمنين من أي جريمة.

## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Master of Protective Security Management.



.....  
Maisarah Ali  
Supervisor

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Protective Security Management.

.....  
Abdul Rahman Ahmad Dahlan  
Internal Examiner

This thesis was submitted to the Center for IT Advancement and is accepted as a fulfilment of the requirement for the degree of Master of Protective Security Management.

.....  
Madiah Sheikh Abdul Aziz  
Head, Center for IT Advancement

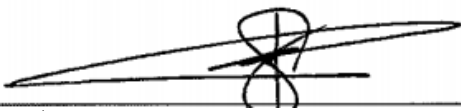
This thesis was submitted to the Kulliyah of Information and Communication Technology and is accepted as a fulfilment of the requirement for the degree of Master of Protective Security Management

.....  
Abdul Wahab Abdul Rahman Dean,  
Kulliyah of Information and  
Communication Technology

## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Nor Isman bin Idris

  
Signature.....

Date...21 oct 2021.....

**INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA**

**DECLARATION OF COPYRIGHT AND AFFIRMATION OF  
FAIR USE OF UNPUBLISHED RESEARCH**

**A STUDY ON PHYSICAL AND PERSONNEL SECURITY  
IMPLEMENTED IN MILITARY MARRIED QUARTERS**

I declare that the copyright holder of this thesis/dissertation are jointly owned by the student and IIUM.

Copyright © 2021 Nor Isman bin Idris and International Islamic University Malaysia. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below

1. Any material contained in or derived from this unpublished research may only be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purpose.
3. The IIUM library will have the right to make, store in a retrieval system and supply copies of this unpublished research if requested by other universities and research libraries.

By signing this form, I acknowledged that I have read and understand the IIUM Intellectual Property Right and Commercialization policy.

Affirmed by Nor Isman bin Idris



.....

...21 Oct 2021....

**INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA**

**DECLARATION OF COPYRIGHT AND AFFIRMATION OF  
FAIR USE OF UNPUBLISHED RESEARCH**

**A STUDY ON PHYSICAL AND PERSONNEL SECURITY  
IMPLEMENTED IN MILITARY MARRIED QUARTERS**

I declare that the copyright holder of this thesis/dissertation is International  
Islamic University Malaysia.

Copyright © 2014 International Islamic University Malaysia. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system,  
or transmitted, in any form or by any means, electronic, mechanical, photocopying,  
recording or otherwise without prior written permission of the copyright holder  
except as provided below

1. Any material contained in or derived from this unpublished research may only be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purpose.
3. The IIUM library will have the right to make, store in a retrieval system and supply copies of this unpublished research if requested by other universities and research libraries.

By signing this form, I acknowledged that I have read and understand the IIUM  
Intellectual Property Right and Commercialization policy.

Affirmed by Nor Isman bin Idris



.....  
Signature

...21 Oct 2021....  
Date



**INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA**

**DECLARATION OF COPYRIGHT AND AFFIRMATION OF  
FAIR USE OF UNPUBLISHED RESEARCH**

**A STUDY ON PHYSICAL AND PERSONNEL SECURITY  
IMPLEMENTED IN MILITARY MARRIED QUARTERS**

I declare that the copyright holder of this thesis/dissertation is Nor Isman bin Idris.

Copyright © 2014 Nor Isman bin Idris. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below

1. Any material contained in or derived from this unpublished research may only be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purpose.
3. The IIUM library will have the right to make, store in a retrieval system and supply copies of this unpublished research if requested by other universities and research libraries.

By signing this form, I acknowledged that I have read and understand the IIUM Intellectual Property Right and Commercialization policy.

Affirmed by Nor Isman bin Idris



.....  
Signature

.....21 Oct 2021..  
Date

## **DEDICATION**

*This dissertation is special dedicated to my beloved wife and kids, and to all my beloved family members.*

## ACKNOWLEDGEMENTS

First and foremost, all praises and adorations belong to Allah SWT, the Almighty and the Omniscient. May Allah send blessing and peace on Prophet Muhammad SAW and his family. Mercies from Allah SWT have been with me throughout the duration of my study programme to completing this dissertation.

I wish to express my appreciation and special thanks to Professor Maisarah Ali for being a very helpful and patient supervisor, for her continuous support, encouragement and leadership. Despite her being very busy, she took time to listen and attend me whenever requested.

Finally, my utmost pleasure to dedicate this work to my dear parents and my family, who granted me the gift of their unwavering belief in my ability to accomplish this goal: thank you for your support and patience.

*Alhamdulillah.*

# TABLE OF CONTENTS

Abstract.....	ii
Abstract in Arabic.....	iii
Approval Page.....	iv
Declaration.....	vi
Dedication.....	x
Copyright.....	vii
Acknowledgements.....	xi
Table of Contents.....	xii
List of Tables.....	xv
List of Figures.....	xvi
List of Abbreviation.....	xv
Glosaries.....	xvii
<b>CHAPTER ONE: INTRODUCTION.....</b>	<b>1</b>
1.1 Background.....	1
1.1.1 Physical Protective Security.....	2
1.1.2 Personnel Protective Security.....	4
1.1.3 Military Married Quarters.....	4
1.2 Problem Statement.....	6
1.2.1 Level of Understanding of Threat.....	7
1.2.2 Allocation.....	7
1.2.3 Existing System.....	7
1.3 Research Questions.....	8
1.4 Research Objectives.....	9
1.5 Research Hypothesis.....	9
1.6 Research Significance.....	10
1.7 Research Scopes and Limitations of the Study.....	10
1.8 Organisation of the Thesis.....	11
<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>12</b>
2.1 Introduction.....	12
2.2 Concept of Protective Security Management.....	12
2.3 Defence in Depth Theory.....	13
2.4 CPTED Theory.....	14
2.4.1 Natural Access Control.....	15
2.4.2 Natural Surveillance.....	15
2.4.3 Territorial Reinforcement.....	15
2.5 Physical Protective Security.....	16
2.5.1 Close Circuit Television (CCTV).....	16
2.5.2 Security Lighting.....	17

2.5.3 Security Fence/Perimeter.....	17
2.5.4 Access Control.....	18
2.5.5 Guard House.....	18
2.5.6 The Importance of Physical Security.....	19
2.6 Personnel Protective Security.....	19
2.6.1 Security Personal.....	20
2.6.2 Implementation of Personnel Security.....	20
2.7 Mindef Policy on Military Married Quarters.....	21
2.7.1 Military Married Quarters Security Policy.....	22
2.7.2 Security Procedure.....	22
2.8 Research Gap.....	23
2.9 Methodological Gap.....	26
2.10 Conceptual Gap.....	26

**CHAPTER THREE: RESEARCH METHODOLOGY..... 27**

3.1 Introduction.....	27
3.2 Research Design.....	27
3.3 Conceptual Framework.....	28
3.4 Population and Sample.....	29
3.5 Instrumentation.....	29
3.5.1 Section 1: Demographic information.....	30
3.5.2 Section 2: Physical Security Questionnaires.....	30
3.5.3 Section 3: Personnel Security Questionnaires.....	31
3.5.4 Section 4: Security Management System – Crime Prevention.....	31
3.5.5 Section 5: Security Management System – Resident Satisfaction...	31
3.5.6 Section 6: Safety Measure in Military Married Quarters.....	32
3.6 Data Collection.....	32
3.7 The Pilot Study.....	32
3.8 Data Analysis.....	33
3.9 Descriptive Statistics of the Survey Data.....	33
3.9.1 Data Preparation.....	34
3.9.2 Characteristics of The Variables Scores.....	34
3.9.3 Normality of Data .....	34
3.9.4 Linearity .....	35
3.9.5 Homoscedasticity.....	35
3.9.6 Examination of outliers.....	36
3.10 Framework of Data Analysis.....	36
3.10.1 Cronbach’s Alpha Reliability Test.....	36
3.10.2 Descriptive Statistics.....	37
3.11 Summary.....	39

**CHAPTER FOUR: FINDINGS AND DISCUSSION..... 40**

4.1 Introduction.....	40
4.2 Demographic Background.....	40
4.2.1 Gender.....	41
4.2.2 Age.....	42

4.2.3 Education Level.....	43
4.2.4 Total Household.....	44
4.2.5 Military Married Quarters .....	45
4.2.6 Service Line.....	46
4.2.7 Workplace.....	47
4.2.8 Rank.....	48
4.3 Descriptive Analysis.....	49
4.3.1 Descriptive Statistics of Physical Security System.....	49
4.3.2 Descriptive Statistics of Personnel Security System.....	50
4.3.3 Descriptive Statistics of Security Management System – Crime.....	51
4.3.4 Descriptive Statistics of Security Management System - Resident Satisfaction Level.....	52
4.3.5 Descriptive statistics of Military Married Quarters.....	53
4.3.6 Normality Assessment.....	54
4.3.7 Reliability Assessment.....	58
4.3.8 Regression Analysis.....	64
4.4 Summary.....	69
<b>CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>70</b>
5.1 Introduction.....	70
5.2 Recapitulation.....	70
5.3 Discussion of Findings.....	71
5.3.1 The Relationship Between Physical Security and Military Married Quarters.....	71
5.3.2 The Relationship Between Personnel Security and Military Married Quarters.....	72
5.3.3 The Relationship Between Security Management System - Crime Preventive and Military Married Quarters.....	72
5.3.4 The Relationship Between Security Management System - Resident Satisfaction Level and Military Married Quarters.....	73
5.4 Summary of Findings.....	73
5.5 Recommendations.....	74
5.6 Conclusion.....	75
<b>REFERENCES.....</b>	<b>76</b>
<b>APPENDIX I: QUESTIONNAIRE.....</b>	<b>82</b>

## LIST OF TABLES

Table 2.1	Research Gap	24
Table 3.1	Summary of Analytical Framework	38
Table 4.1	Descriptive Statistics of Physical Security System	50
Table 4.2	Descriptive Statistics of Physical Security System	51
Table 4.3	Descriptive Statistics of Security Management System – Crime	52
Table 4.4	Descriptive Statistics of Security Management System – Resident Satisfaction Level	53
Table 4.5	Descriptive statistics of Military Married Quarters	54
Table 4.6	Normality Assessment	55
Table 4.7	Reliability Analysis	58
Table 4.8	Data of Durbin Watson	59
Table 4.9	Analysis of Multi-collinearity	60
Table 4.10	Model Summary	65
Table 4.11	Hypothesis – Coefficient	66
Table 4.12	Summary of Hypotheses	68

## LIST OF FIGURES

Figure 3.1	Conceptual Framework	28
Figure 4.1	Demographic Characteristics: Gender	41
Figure 4.2	Demographic Characteristics: Age	42
Figure 4.3	Demographic Characteristics: Education	43
Figure 4.4	Demographic Characteristics: Total Household	44
Figure 4.5	Demographic Characteristics: Military Married Quarters	45
Figure 4.6	Demographic Characteristics: Service	46
Figure 4.7	Demographic Characteristics: Workplace	47
Figure 4.1	Figure 4.8 Demographic Characteristics: Rank	48
Figure 4.9	Histogram for Normality Analysis	61
Figure 4.10	Residual's Normality	62
Figure 4.11	Scatterplot for Homoscedasticity	63



## LIST OF ABBREVIATION

ATM	Angkatan Tentera Malaysia
ATM	Auto Teller Machine
CCTV	Close Circuit Television
CPTED	Crime Prevention Through Environmental Design
CSU	Channel Service Unit
DID	Defense in Depth
DSU	Digital Service Unit
FDDI	Fiber Distributed Data Interface
GC	Gated and Guarded Community
KEMENTAH	Kementerian Pertahanan
MAFJD	Malaysian Armed Forces Joint Doctrine
MINDEF	Ministry of Defence
NGC	Non-Gated and Guarded Community
RKAT	Rumah Keluarga Angkatan Tentera
SOP	Standard Operating Procedure
SPSS	Statistical Package for Social Science
UNDP	United Nation Development Programme

## GLOSARIES

Security	“Security” often has to do with a group’s efforts to protect its members from harm. Protection of a person, building, organization, or country against threats such as crime or attacks by foreign countries.
Safety	“Safety” most often relates to a personal feeling of being free from harm or danger. A state in which or a place where you are safe and not in danger or at risk.
Personnel	"staff" or "workforce" are the group of people that works for a business or company.
Personal	"private" or "individual" is an adjective describing items that belong to a person.
Protective Security	The protection of security-sensitive activities against espionage, sabotage, terrorist offences and other crimes that could threaten those activities, and the protection of classified information in other cases.

# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND

In this technological and modern era, Protective Security Management is not uncommon in the defense, tourism and other industries. Protective security management is a combination of three elements namely physical security, personnel security and information security. All the three elements are interrelated to ensure that a certain level of security in that place is high and effective. The ultimate goal of in Government protective security management is to safeguard Government assets and employee from any opportunities of loss and mitigate the risk. In order to apply the Protective Security Management, there is a theory that needs to implement which is Defense in Depth theory. The approach of to this theory is to combine several measures to counter any possibilities of risk and vulnerabilities occurring such as an authorized access, act of sabotage, espionage and subversive activities. The Protective Security Management is also widely implemented in other country such as New Zealand, Singapore, Australia, and United Kingdom.

Protective security management is an effective way to manage the implementation of physical security, personnel security and information security. Residential areas throughout Malaysia are either public or military with or without physical and personnel security. Information security is usually implemented in buildings with offices no matter how small or large is the building, for example, Kuala Lumpur Twin Tower, Ministry of Defense, banks and etc. These buildings implement the combination of three security elements. However, the absence of one element will not affect the performance of the assigned security task. This study, I will focus on only two elements which are physical security and personnel security. The combination of these two elements is ideal for the security of facilities and infrastructures such as housing estate.

Security management system has three main components which are people, process and procedure and technology. In the security management system first element is people, consist of person who perform the duty (Personnel Protective Security), person who live in the military married quarters (residents) and person who came from outside (visitor or worker). Second element in the security management system is process and procedures such as Military Guard SOP, Part One Orders, Manuals and Checklist. The third element in the security management system is technology (Physical Protective Security). Its cover using of IR4.0 technologies to perform surveillance and prevention such as AI, apps, CCTV, video analytics, IOT, drone, guard house.

### **1.1.1 Physical Protective Security**

Physical security is one of important part in Protective Security Management. In Information Technology physical security is the protection of personnel, hardware, software, networks and data from physical actions and events that could cause serious loss or damage to an enterprise, agency or institution. While in other area of physical security is protection from fire, flood, natural disasters, burglary, theft, vandalism and terrorism. This part of security concerned with physical measures designed to safeguard personnel, to prevent unauthorized access to equipment, installations, material, and documents, and to safeguard them against espionage, sabotage, damage, and theft. Physical security system control is also implemented in the military married quarters. A typical physical security infrastructure consists of:

- Physical access control such as card readers, or biometric devices (i.e., iris scans, facial recognition, palm/thumb readers).
- Physical blockade and locking mechanisms, e.g., electromagnetic locking devices.
- Fire control and suppression systems such as sprinklers, smoke detectors, CO2 detectors.

- Voice, Video and data for closed circuit TV's this includes the infrastructure such as the CSU/DSUs FDDI rings, ATM backbones.

#### ***1.1.1.1 Surveillance System***

Surveillance systems in public places give impact to the privacy of individuals, it is important that boards can demonstrate to their communities that they are managing these systems well and in compliance with privacy requirements. The norm surveillance system that has been used around the world is Close circuit television (CCTV). There are many types of CCTV such as dome CCTV which can monitor 360 degree and fix CCTV which is focus on one side only. Fix CCTV is cheaper than dome CCTV. In this modern era, CCTVs can be view by mobile handphone. The purpose of CCTV is to alert to the duty guard and it can use as a proof if brought to court.

#### ***1.1.1.2 Prevention System***

Access card is one of the prevention systems that has been used around the world. It is used to control and prevent unauthorized person to enter the restricted area. For example, automated gated, door locked, barrier and so forth usually come with on access card. From the observation all the military personnel who's staying outside the camp was been given an access card. They need to register and get the card from the Ministry of Defense Headquarters.

### **1.1.2 Personnel Protective Security**

Adequate manpower is essential to the success of any Defense-in-Depth plan. Organization leaders must ensure they have the necessary personnel to plan, lead, organize, and control the security operations for their organization. Defense-in-depth can reduce the overall need for manpower by deterring an attack through visual countermeasures, delaying overall entry time to a facility by an assailant or creating physical barriers to deny unauthorized access. Security manpower includes professionals (i.e., full-time Protective Security Officers) and those assigned specific security duties (e.g., escort duties). It should be emphasized to all employees that they are directly responsible for securing organizational property and information in their work area and for property they have assigned for or under their direct control.

Malaysian Armed Forces have their own security force which known as Royal Military Police for the army, Provost Tentera Laut (PROTELA) for the Navy and Provos TUDM for the Airforce. Their duty is to ensure the camp is secure from any threats. Military polices are assigned to conduct the security control in the vital asset such as building Ministry of Defence and Military Camps in Malaysia. In this study, military persons who on duty as a guard in military quarters are the subject of study. Their duty is similar to other military police personnel.

### **1.1.3 Military Married Quarters**

The military married quarters are provided by the Ministry of Defense to every married soldier. Most military quarters are built near working area. For example, around the MINDEF there are about 10 military housing areas including inside and outside the camp. The purpose of the quarters was to facilitate the movement of troops to the nearest workplace and access if called upon promptly. Military married quarters have been built in a variety of designs according to the rank of military personnel. The married quarters are

managed by Kentonmen Camp, which is responsible for repairing, upgrading, controlling and so on. All the complaints and request need to be submitted to Kentonmen Camp for them to take further action. Commanding Officer of Kentonmen camp has the power to decide the priority of upgrading, adding, repairing and so forth. In 2019, the Ministry of Defense has allocated an additional RM50 million to upgrade the Malaysian Armed Forces (ATM) family home nationwide. The allocation provided does not include upgrading the existing security system in every military housing area throughout the country, both inside and outside the camp.

#### ***1.1.3.1 Inside Camp***

The number of military housing in the camp is very limited as it depends on the size of the ground in each camp. However, the level of security of military housing in the camp is better than the housing area outside the camp. The crime statistics for housing inside the camp area are lower than those outside the camp. The security system inside the camp was tighter because the intruders had to pass through the main gate and the armed guards. In addition, CCTVs are installed at each campsite which helps to prevent crime. Within the residential area there are only 2 residential areas namely Desa Tun Hussien Onn for private rank to Warrant Officer and the Kompleks Perumahan Tunku Osman Jiwa for officer rank form Lieutenant until Jeneral.

#### ***1.1.3.2 Outside Camp***

The study focused more on military housing outside the camp area where it had low security levels and led to increased crime rates. The increase in crime rates in each of the military married quarters may be due to the weaknesses of the existing security system both in terms

of physical and personnel security. There are approximately 6 military housing area outside the camp namely Perumahan ATM Jalan UThant which is near to Pandan Village, Desa Pacific which is near to Ampang, Pangsapuri ATM and Kuarters Sri Mutiara which is located in Setiawangsa, Desa Setia Wira, Desa Wangsa Keramat and Sri Mutiara Quarters located in Keramat area. Each military housing area has a leader appointed by the Kementah Camp Commanding Officer. Leader of military married quarters are responsible for ensuring the high safety and security standard. The leaders and the appointed committee members will resolve issues such as admin matters as well as security matters between residents and management.

## **1.2 PROBLEM STATEMENT**

Every residence in Malaysia whether public or military has its own problems. This is likely to be due to a weakness of the system. From 2017 until 2019, there are 289 theft cases in military married quarters outside camp were reported by residents to the Kementah Camp. Theft cases include motorcycle, car theft, parts and so on. Problems that arise may be due to the level of understanding of threats, allocations and systems used.

### **1.2.1 Level of Understanding of Threat**

Low-level threats include one or two outsiders with no authorized access or inside information with the intent to cause physical damage to the water utility facility or theft of property or equipment. Medium-level threats include a small group of one to three outsiders who possess a limited amount of knowledge about the assets, processes, and security systems. This level of threat may involve equipment or tools that are portable and easy to obtain.