

# Syarah PERDANA 2011

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**“Wireless Technology:  
Can We Live Without It?”**

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**SYARAHAN PERDANA 2011**

**WIRELESS TECHNOLOGY:  
CAN WE LIVE WITHOUT IT?**

**AYOB JOHARI**



2011

## PREFACE

This book provides useful information and knowledge of wireless technology starting from the fundamental of communication, application, and satellite communication, evolution of wireless and impact of wireless technology on social.

Wireless technology is very synonym to all of us in modern living. This book is written in a simple manner for readers from all walks of life to understand. It is written in such a manner especially for readers of non-engineering education background. Wireless technology is indeed very broad and wide; covers almost every spectrum in electronic communication. It is with intention that the wireless technology should be transcended and grasped by all so that it is fully understood and appreciated.

This book consists of eight chapters. Chapter One is on Introduction of Communication System in which it describes the basic of communication, terminology in communication, noise and attenuation, types of communication, signal, frequency, frequency spectrum, band allocation, frequency assignment and wavelength.

Chapter Two is on Basic of Wireless Communication. It describes about wireless technology, definition of wireless communication, modulation, the importance of modulation, bandwidth, amplitude modulation, frequency modulation, phase modulation, and types of digital modulation. The differences between analog and digital signals AM and FM are clearly explained.

Chapter Three touches on wireless system in which it describes radio communication as the most basic of wireless system. It also describes transmitter, AM and FM transmitters, AM and FM receivers, frequency band and FM channels in Malaysia. This chapter gives insight knowledge on the fundamental of wireless system.

Readers will be given basic knowledge and understanding on wireless application in Chapter Four. This chapter describes on types of wireless device, RF and infrared devices, basic on cellular phone, RF and infrared remote control devices, ham radio, wireless using microwave, radar system, RFID, barcode, Bluetooth, wi-fi, broadband network and Wi-MAX.

Introduction to satellite communication is available in Chapter 5. This chapter describes on the types of satellite, ionosphere, satellite system, GPS and types of application using satellite system.

The rest of the chapters 6, 7 and 8 describe on the development of wireless in Malaysia, the evolution of wireless communication, prediction of electronic gadget for 2011, related research work titles carried out in the faculty, and impact of wireless technology on social in general.

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