

# Introduction to Blockchain, Cryptocurrency, and Computer Penetration

## ABOUT THE WORKSHOP

### INTRODUCTION

This one day workshop is divided into two main aims that introduce the basic of Blockchain and Cryptocurrency in the morning session and Computer Penetration in the evening session. Blockchain is considered as one of the genius invention of today's world that have been produced on white paper by a man named Satoshi Nakamoto in 2009. Until now, no one knows who this person is and still remains mystery. His idea was to concentrate and disseminate information without being duplicated and altered. The most popular Blockchain technology product is Bitcoin (BTC), the first cryptocurrency in the world, which price and demand are now reaching RM40000 / BTC. It is important to learn the concept of cryptocurrency either for investment or for the technology behind it. In the morning session, participant will be taught strategically on how to open an account, buying and selling cryptocurrencies, and basic of cryptocurrency mining. Apart from that, participants will be exposed on how to detect cryptocurrency scam from the unscrupulous individuals or organizations.

Though technology behind the bitcoin itself is difficult to hack, it does not mean that it's necessarily safe. There are also those who are looking to access other peoples' wallets illegally to swipe their tokens and coins. The Chinese General Sun Tzu, in the "The Art of War" wrote that *"the one who knows the enemy and himself will not be in danger in a hundred battles"*. Therefore, in order to protect one's computer from being infiltrated, one should know how to penetrate a computer. Computing devices can be infiltrated if they are not properly protected. Once an adversary is able to gain unauthorized access to a computer, he is not only able to gain access to sensitive information, but use the computer as a proxy to access or attack other computers. In the evening session, participants will learn that there are valid and legal reasons to perform a computer penetration exercise. Participants will then be shown how to perform several techniques to break into computers or systems. Once the participants have become familiarized with the concepts and techniques, they will discover how to practically protect their computer from being infiltrated.

### OBJECTIVES

At the end of this workshop, participants are expected to be able to:

1. Understand the concepts of Blockchain and Cryptocurrency.
2. Able to conduct cryptocurrency trading or mining.
3. To detect and avoid cryptocurrency scam.
4. Understand the concepts in computer penetration.
5. Apply several computer penetration techniques.
6. Reasonably protect computing devices from being infiltrated.

### METHODOLOGY

A variety of presentation methods will be used including instructor-led training, discussion, laboratory sessions and exercises.

## TECHNOLOGIES LEARNT

Technologies that you will learn and develop throughout the workshop:

1. Using Remitano to buy and sell cryptocurrency
2. Running Claymore on Windows/Linux for cryptocurrency mining
3. Running nicehash software for cryptocurrency mining
4. Running virtual machines (VMs).
5. Kali Linux operating system.
6. Relevant Linux commands.

## WORKSHOP SETTINGS

- Venue : FSKTM, UM
- Date : 6 November 2019
- Level : Basic
- Inclusive : Breakfast, Lunch, Notes and Certificate of Completion
- Registration Link : <https://bit.ly/2IPm1q8> (click here to register)
- Audience : IT Officers, Instructors, Undergraduates, Postgraduates, Researchers

## COURSE SCHEDULE

### MORNING SESSION

#### Introduction to Blockchain and Cryptocurrency

- What is Blockchain and what is application of Blockchain
- What is Bitcoin and other Altcoins.

#### Cryptocurrency Workshop

- Cryptocurrency – How to own Cryptocurrency (opening an account, buying and selling).
- Cryptocurrency – Investment and Scam.

#### Cryptocurrency Mining

- Cryptocurrency mining GPU 101.

### EVENING SESSION

#### Introduction to Computer Penetration

- Types of hackers.
- Basic steps in a computer penetration activity.

#### Computer Penetration Techniques

- Various computer penetration techniques.
- Using techniques to break into computer systems.

#### Computer-related Protection Measures

- Protecting computer from unauthorized use and access.

**INSTRUCTOR BIOGRAPHY**

Dr. Saaidal Razalli Azzuhri joins the academic team in Department of Electrical Engineering, University of Malaya since 2006 and currently a Sr. Lecturer with Department of Computer System & Technology, Faculty of Science Computer & IT. He completed his PHD from University of Queensland, Australia in Wireless Networks System specializing in wireless ad-hoc routing protocol. Just recently he manage to secure a private grant to establish a Blockchain Technology Lab, which is the first Blockchain physical lab in Malaysian University. Other than that, he obtains a government's grant in wireless communication and autonomous drone system. His current research focusing on fiber optical sensor and laser, wireless networks, Blockchain, autonomous Unmanned Aerial Vehicle (UAV) and AI applications.

**INSTRUCTOR BIOGRAPHY**

Muhammad Reza Z'aba obtained his Ph.D. in Cryptography from Queensland University of Technology, Australia in 2010. He is a Senior Lecturer at the Faculty of Computer Science and Information Technology, University of Malaya. He previously worked as a security researcher at MIMOS Berhad, a research and development institute under the purview of the Malaysian government. His research interests are in the area of symmetric cryptography, computer security and blockchain. He is one of the co-designers of the authenticated encryption algorithm called CiliPadi, which was accepted as one of the Round 1 candidates in the US NIST Lightweight Cryptography Project.

**MORE INFORMATION****FSKTM TECHNOVATIONS**

**Email:** [fsktm.technovations@um.edu.my](mailto:fsktm.technovations@um.edu.my) | **Office:** +603-79676435

UM INNOVATIONS SDN. BHD. (772583-X)  
Suites 2A & 2B, Incubator 5, Level 5,  
Research Management & Innovation Complex  
University of Malaya, 50603 Kuala Lumpur  
Malaysia