

## Web3.0系列： 區塊鏈技術及應用

CONNECTION TECHNOLOGY 裝備未來  
**FUTURE SKILLS**

課程費用: HK\$4,500 (最高可獲得資助: HK\$3,000)

\*此為最高資助金額，資助款項以最終批核為準。

 **NITTP**  
認可課程

HKPC/105/2023(RT)

元宇宙是由多種技術構建的虛擬樞紐，而區塊鏈技術在其中發揮著重要作用。在這1天的工作坊中，導師將涵蓋區塊鏈的概念、最新發展、最新市場趨勢和商業案例，並會討論最新的區塊鏈話題，如 NFT（非同質化代幣）、DApp（分散式應用程式）、DeFi（去中心化金融）等。為了讓參與者有個輕鬆愉快的學習體驗，導師將會在課程中使用專有設計的手機遊戲應用程式和小組討論進行。

本課程以互動的遊戲學習方式教授對區塊鏈技術和其相關應用程序（如 NFT、GameFi、DeFi、Metaverse），令參與者可以更容易掌握區塊鏈概念和應用。歡迎不同行業的專業人士參與。

學生完成課程後將獲頒發證書。

課程編號	10012731-02
日期及時間	2024年2月1日 09:30-17:30
地點	九龍塘達之路78號生產力大樓一樓
語言	廣東話
課程費用	\$4,500* (最高獲得資助港幣3,000元；2位或以上報名，可享團體優惠。請聯絡我們查詢詳細)
課堂時數	共6.5小時

### 課程重點

- 探討平台之間缺乏對等信任和中心化的問題
- 透過容易理解的方式解釋區塊鏈如何使用分佈式賬本架構解決當前互聯網模型中的信任問題
  - 用手機應用程式遊戲讓參加者了解到：
    - 區塊鏈 / 分佈式賬本技術 (DLT) 的定義
    - 解釋去中心化架構帶來點對點交易的好處
    - 網絡節點中分佈式分類帳
    - 解釋共識協定促進去中心化架構的信任
    - 不對稱鑰匙、公共和私人鑰匙
    - 通過探索去中心化架構中的不同共識協議（工作證明、風險證明）來挖礦的概念
    - 智能合約
    - 分散式應用程式 (DApp) 的好處
    - 區塊鏈在元宇宙的應用
    - NFT於創意產業和元宇宙發展

此課程已獲「新型工業化及科技培訓計劃」認可，合資格學員最高可獲得2/3學費資助。

詳情請瀏覽：<https://nittp.vtc.edu.hk>。

## 課程大綱

### 課堂一

#### 序

- 打破區塊鏈的常見迷思和誤解

#### 區塊鏈技術的本質

- 為什麼要使用區塊鏈？它可以帶來為什麼好處

#### 區塊鏈體驗活動 – 專有設計的手機應用程式遊戲

##### 1.1 現有的非區塊鏈交易

- 利用手機應用程式遊戲了解區塊鏈的概念
  - 去中心化的好處
  - 分佈式賬本系統概述
  - 網絡節點中的分佈式賬本
- 討論環節：中心化帶來的權利不均問題

##### 1.2 現有的非區塊鏈交易（有黑客）

- 討論環節：中心化帶來容易被黑客攻擊和刪改記錄

### 課堂二

#### 區塊鏈體驗活動 – 專有設計的手機應用程式遊戲

##### 2.1 區塊鏈交易

- 分佈式共識（工作證明、風險證明、挖礦）
- 討論環節：去中心化的好處

##### 2.2 區塊鏈交易（有黑客）

- 討論環節：去中心化的網絡安全問題
  - 中心化與去中心化的比較

##### 2.3 區塊鏈交易（挖礦）

- 了解工作證明
- 工作證明與風險證明的比較

##### 3. 示範

- 密碼學（私人和公共鑰匙）
- 智能合約
- 分散式應用程式（DApp）

#### 區塊鏈在元宇宙的應用

- 去中心化金融（DeFi）
- 玩遊戲賺錢（GameFi）
- 去中心化社交媒體（SocialFi）
- 非同質化代幣（NFT）– 功能、交易平台、技術、機會和限制
- 元宇宙和 Web 3.0 的關係
- 討論環節：不同行業的應用案例

## Inquiry

Ms CHAN | +852 2788 5634 | [training\\_2213@hkpc.org](mailto:training_2213@hkpc.org)

Ms LUI | +852 2788 5919 | [training\\_2213@hkpc.org](mailto:training_2213@hkpc.org)

## 馬文藻博士

Andrew 是一位充滿熱誠的教育者，在企業培訓和區塊鏈、數碼轉型、領導才能和管理、設計思維方面的方面擁有超過十多年的經驗，獲得不少客戶和學生的支持。為了推廣區塊鏈應用，他跟團隊設計了一個專有的體驗式學習手機應用程式，讓學生能夠在富趣味性的遊戲中學習到抽象又複雜的區塊鏈概念。

Andrew的培訓和分享啟發了很多聽眾，他曾被多間跨國公司和公共組織/活動邀請為講者，例如TEDx、中信泰富、高露潔、安達保險、市區重建局、香港警務處等。他擅長把複雜的技術概念轉化為外行術語而聞名，使非技術人士易於理解。

此外，他的學術成就受到不同認可，包括商業與領導學院的環球領袖博士學位，研究重點是跨文化和跨代領導，MBA；理學碩士（光通信）；理學士（電氣工程）；和BA（經濟學）。他在高科技行業擁有超過15年的全球管理經驗，在亞洲和北美市場曾出任營銷、業務運營、諮詢和管理等多個職能。



## 報名方法

- 請掃描QR code或登陸以下連結完成報名及付款。

<https://www.hkpcacademy.org/10012731-02-blockchain-technologies-and-applications/>

### 申請NITTP培訓資助

公司如需為僱員申請NITTP培訓資助，須於開課至少五星期前於<https://nittp.vtc.edu.hk/rtpp/login>提交申請。另外，申請表連同證明文件亦可電郵至 [nittp@vtc.edu.hk](mailto:nittp@vtc.edu.hk) 提交予秘書處。



## Inquiry

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## Metaverse Series: Blockchain Technologies and Applications

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**FUTURE SKILLS**

Metaverse is a virtual hub constructed by many technologies, and blockchain plays an important role in it. In this 1-day workshop, the trainer shall cover concepts, latest development, up-to-date market trends and business use cases of blockchain, as well as referencing to the latest blockchain topics like NFT (Non-fungible token), DApp (Decentralized Application), DeFi (Decentralized Finance) and etc. To enhance participants' experiential learning experience, the trainer will make use of the proprietary designed mobile application and interactive activities during dedicated sessions. From the interactive activities, the participants could grasp the blockchain concepts and applications more effectively.

The course welcomes professionals from different functions who wish to gain basic understanding of blockchain technologies and associated applications such as NFT, GameFi, DeFi, Metaverse in a fun, layman and engaging way.

Certificate of Attendance will be issued to participants who have attended all lessons.

Programme code	TBC
Date & Time	4 Dec 2023 09:30-17:30
Venue	1/F, HKPC Building, 78 Tat Chee Avenue, Kowloon Tong
Medium	Cantonese
Course fee	\$4,050
Duration	6.5 hours

### Programme Highlights

- Highlighting the issues of current Internet model: lack of peer-to-peer trust and the issue of centralization
- Explaining in easy-to-understand layman terms on how Blockchain addresses trust
- issues in current Internet model by using Distributed Ledger Architecture
- Understanding the fundamental concepts of blockchain by participating a fun board-game.
  - Definition of Blockchain/Distributed Ledger Technology (DLT).
  - Explanation on the benefits of decentralization architecture that enables peer to peer transactions.
  - Walkthrough of Operation in Distributed Ledger among Networks nodes.
  - Explanation on Consensus Protocols that facilitate trust in decentralized architecture.
  - Illustration of the Concept of asymmetric key encryption, Public Key & Private Key.
  - Highlight the benefits Smart Contract that can eliminate 3rd parties.
  - Explanation of the benefits of Distributed APP (DAPP) on blockchain network.
  - Illustration of the latest development of NFT (Non-Fungible Token) and how it works.
- Some application examples and future directions on Blockchain in different industries/functions such as DEFI, GAMEFI, Health care, Real estate, logistics, HR, etc.
- Overview of Design Thinking:
- Interactive online Quiz to bust the common myths of innovation
- Mini lecture: The importance of Design Thinking

## Course Outline

AM	PM
<p><b>Introduction</b></p> <ul style="list-style-type: none"> <li>• Polling to bust the common myths and misunderstanding of blockchain</li> </ul> <p><b>The Essence of Blockchain Technology</b></p> <ul style="list-style-type: none"> <li>• Why blockchain, and what value will it bring?</li> </ul> <p><b>Blockchain Experiential Activities – Proprietary Designed Mobile App Game</b></p> <p><u>Stage 1.1 Existing non-blockchain trading</u></p> <ul style="list-style-type: none"> <li>• Using board game to understand the fundamental concepts of blockchain <ul style="list-style-type: none"> <li>• Benefits of Decentralization</li> <li>• Distributed Ledger System overview</li> <li>• Distributed Ledger in Networks nodes</li> </ul> </li> <li>• Discussion: Issues in centralised system – centralised leads to unequal power and profit</li> </ul> <p><u>Stage 1.2 Existing non-blockchain trading (with hacker)</u></p> <ul style="list-style-type: none"> <li>• Discussion: Issues in centralized system – easy hacking and mutable records</li> </ul>	<p><b>Blockchain Experiential Activities – Proprietary Designed Mobile Game</b></p> <p><u>Stage 2.1 Blockchain trading</u></p> <ul style="list-style-type: none"> <li>• Distributed consensus (Proof of Work, Proof of Stake, Mining)</li> <li>• Discussion: Power of decentralized system – benefits of decentralisation with more even power and profit among all stakeholders</li> </ul> <p><u>Stage 2.2 Blockchain trading (with hacker)</u></p> <ul style="list-style-type: none"> <li>• Issues in decentralized system Security <ul style="list-style-type: none"> <li>• Security issues in centralized and decentralized system</li> </ul> </li> </ul> <p><u>Stage 2.3 Blockchain trading (mining operation)</u></p> <p><b>Stage 3 Demos</b></p> <ul style="list-style-type: none"> <li>• Authentication and Trust: Private/Public Keys</li> <li>• Smart Contracts</li> <li>• The power of DAPP (distributed app) and Ethereum</li> <li>• DeFI – finance with Bank</li> <li>• Gamefi – Play to earn</li> <li>• NFT – NFT functions, marketplace, technologies behind NFT</li> <li>• Application Case Studies</li> </ul> <p><u>Design Thinking Overview</u></p> <ul style="list-style-type: none"> <li>• The importance of Design Thinking, especially in ICT</li> <li>• Overview of Double Diamond Model</li> <li>• The integration of Convergent (Left Brain) and Divergent Thinking (Right Brain)</li> </ul>



## Dr. Andrew Ma

Andrew is a passionate educator who has more than a decade of experience in corporate trainings and coaching in blockchain, digital transformation, leadership & management, design thinking with satisfactory feedback ratings. With the aim to promote blockchain application, Andrew and his team has designed a proprietary blockchain experiential learning mobile application and activities to put abstract and difficult concepts into funny way. He was invited as keynote speaker by many MNC and public organisations/events, such as TEDx; Citic Pacific, Colgate, Chubb insurance, Urban Renewal Authority, HK Police Force, etc. Andrew's technology trainings and sharing have inspired many, which is proven by the clients' feedback. He is known for putting difficult technology concepts into laymen terms, making them easy to digest for non-techies.



He is also recognised for outstanding academic achievements, including a Ph.D from School of Business and Leadership, with a research focused on cross-cultural & cross generational leadership, MBA; M.Sc. (Optical Communication); B.Sc. (Electrical Engineering); and BA (Economics). He has more than 15 years of global management experience in hi-tech industries in various functions like marketing, business operation, consultancy and management in Asian and North American markets.

## Enrolment method

- Click [here](#) or scan the QR code to complete the enrolment and payment online; or
- Mail the crossed cheque with payee name "Hong Kong Productivity Council" in HKD) and the application form should be mailed to Hong Kong Productivity Council, 3/F, HKPC Building, 78 Tat Chee Avenue, Kowloon (attention to Ms Elaine Ku). Please indicate the course name and course code on the envelope. Enrolment form can be downloaded at <https://www.hkpcacademy.org>



## Supporting Organisations (in alphabetical order)

Hong Kong Software  
Industry Association  
香港軟件行業協會SUCCESS  
中小企業支援與諮詢中心  
Support and Consultation Centre for SMEs