



## Method and Apparatus for Classifying a Cryptocurrency Asset

### Principal Investigator

Dr X F Liu

Associate Professor, Department of Media and Communication at  
the City University of Hong Kong  
Scientist, AIFT

| Registered<br>Patent Region | Patent/<br>Filing No. | Description                                                                           | Issued/ Filing<br>Date | Status    |
|-----------------------------|-----------------------|---------------------------------------------------------------------------------------|------------------------|-----------|
| Hong Kong                   | HK30107829            | Method and Apparatus for<br>Classifying a Cryptocurrency Asset<br>(對加密貨幣資產進行分類的方法和裝置) | 25 Oct 2024            | Granted   |
| US                          | 18/772,118            | Method and Apparatus for<br>Classifying a Cryptocurrency Asset                        | 13 Jul 2024            | Published |

**Stage of Technology Transfer:** Commercially Viable Technology/ Product Ready for Sale

**Research Area:** Cryptocurrency Analysis, Blockchain Data Analytics, and Fraud Detection

### Abstract

A computer-implemented method of classifying a cryptocurrency asset, which involves receiving a set of sample transaction records for the asset, generating a spanning tree to represent connections between users based on those transaction records, calculating metrics from the spanning tree, and using a classification model to determine whether the asset should be classified as a suspected pyramid scheme or not. The system leverages blockchain data analytics to enhance the detection of pyramid schemes, offering a structured approach to identifying fraudulent token distribution patterns. The method improves the accuracy of fraud detection and provides real-time evaluation capabilities, making it highly effective in mitigating risks in the cryptocurrency market.