

## Energy Efficient Simple and Anonymous Crypto currency Management with Crypto Identities

<sup>1</sup>H.T.M.Gamage, <sup>2</sup>H. D. Weerasinghe, <sup>3</sup>N. G. J. Dias

<sup>1,2,3</sup>Department of Computer Systems Engineering, University of Kelaniya, SriLanka.

Pages: 795-806

### [Abstract: \[+\]](#)

Since the introduction of bitcoin, thousands of cryptocurrencies have been developed and adopted all over the world. Nevertheless, we believe they still have a long way to go in order to replace regular currencies in day-to-day activities. A separate cryptocurrency wallet is required to hold coins and tokens of its type, which is also one of the complicated problems concerning managing multiple cryptocurrencies. Every wallet has at least one unique alphanumeric identifier address, usually twenty-six or more characters in length. Since the blockchain ledger is public, the user's anonymity is protected using this address when transferring e-money. Communicating this address is also a difficult process. The current method to resolve the communicating complexity without compromising anonymity is to use a QR code, requiring a QR scanner app. Transacting with different coins with the same user requires communicating all of the different wallet addresses. With this research, we propose a solution to the multifaceted problems of executing peer-to-peer cryptocurrency transactions and managing varied cryptocurrencies, without compromising anonymity. We introduce secure and anonymous crypto identities with an open protocol to securely communicate identities over a communication medium, tied to any number of different cryptocurrencies.

**Keywords:** Cryptocurrency, Blockchain, Cryptocurrency Transactions, Cryptocurrency Management, Public Crypto Identities, Energy.