**ABSTRACT**

CHAPTER-1

Cryptocurrency is a form of digital or virtual currency designed to work as a medium of exchange. These have emmerged as an important nancial software system. These cryptocurrencies are generated by a process called mining.

Mining is an integral process that not only creates the currency but also, adds records of past transactions to the distributed ledger (collection of transactions) known as blockchain. The use of blockchain and cryptography, enables security in the environment and makes it robust in nature. Cryptocurrencies are designed using a peer-topeer system, so they are not centrally owned by anyone, like the regular currencies. For the mining of such digital currencies, we have to rely on miners to validate the currency and its creation.

To provide the security to the currency, it uses crytography to secure and verify transactions as well as to control the creation of new units of a particular cryptocurrency. Cryptocurrencies are limited entries in a database that no one can add activity to unless specific conditions are fullfilled. There are almost more than 1600 cryptocurrencies in the market right now, and many more are created daily. Bitcoin, Ethereum, Tether, Binance coin, are some of the top ranked cryptocurrencies.