

# **Information Technology behinds the Cryptocurrencies**

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# **Information Technology is behind the Cryptocurrencies**

In the previous era, no one can ratify that Information Technology will be the main material in issuing the currencies. But the very quick developments in the current digital revolution make this real.

Computers, networks, and the internet, from the first side, and algorithms and in addition to the cryptography techniques from the second side are now working together in the process of issuing the crypto currencies.

# Introduction

## The Bit Coin Over View:

- Bit Coin is a digital currency, it is available through the Internet , without any physical presence.
- It was appeared first time in 2009, by anonymous person (unknown person) who is Satoshi Nakamoto which is a Japanese Name).
- It doesn't depend on gold or silver as other real currency.

- Bit Coin is transacted directly and immediately between users and without any need to the banks..
- Each Bit Coin consists from basic unit, which is called by ( Satoshi). Each 1 BTC equivalents to : 100, 000, 000 Satoshies.
- The 1 Bit Coin value in the international financial market is now nearly equivalent to : 4200 \$. (1BTC = 4200 \$).
- Nearly 10% from the international transactions are done world wide by using the Bit Coins.

# How does the Bit Coin Build ?

There are very complex and difficult computational problems and puzzles, behind these puzzles there are the Bit Coin codes.

Now, the special computer networks will start solving these complex problems and puzzles in order to find the codes of the Bit Coin.

This process is defined by: **Bit Coin Mining**.

**So, The short answer is IT.**

# How does the Bit Coin Mining Start ?

- Firstly, you should create your own **WALLET** on the Block Chain. So, you will have a user name and password for your wallet. Also, there is an Address(**ID**) for your wallet.

There are many block chain wallets to create your own wallet through them. For example:

Coinbase, Trezor, Xapo, Electrum,....

- Secondly, Let the computer works continuously to solve the complex problems and puzzles to find the Bit Coin codes.

### Note:

This will be very difficult and may not be done in the case of using personal computers. Now, **farmers of computer networks** are created for Bit Coin Mining.



- Thirdly, you should use the **Faucet Application** to get the Bit Coin by entering your wallet ID in the faucet.

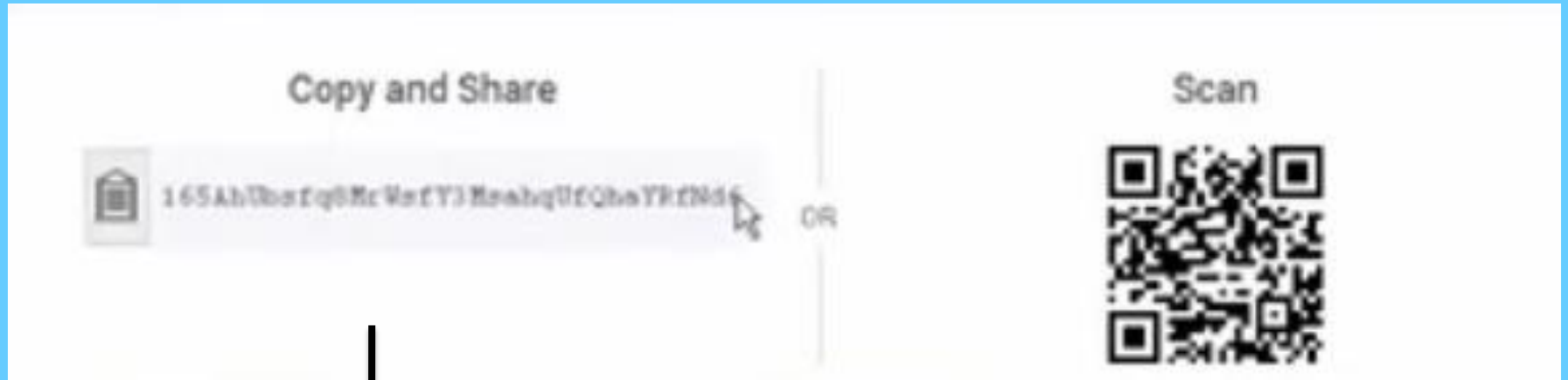
( The receiving of the Bit Coin depends on the success of computer in solving the complex problems and puzzles).

There are many faucets applications.

For example:

Free Bit Coin, Bit Coin Zebra, Bit Coinker,  
Moon Bit Coin,.....

# Wallet Address( ID) and Wallet QR Code



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# Purchasing the Bit Coins

**A-** Enter to the Block Chain Wallet.

**B-** Insert your bank account number and details.

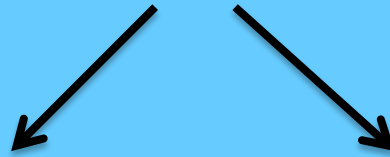
**C-** Determine the needed value of the Bit Coin.

**D-** Insert your Wallet address (ID).

**E-** Confirm the Process.

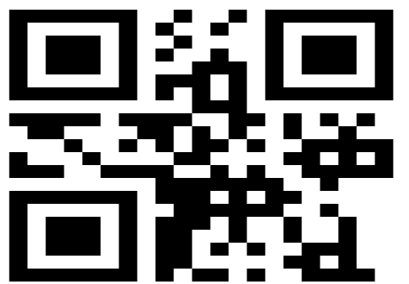
**Then, you will receive the value of the Bit Coin in your own wallet.**

# Purchasing by using the Bit Coins



You Can Print your wallet QR Code from your own wallet.

And then you can purchase from the markets. The Seller will scan your wallet QR Code and the bit coins' value will be debited from your wallet.



You Can purchase online by using your wallet address (ID) .

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# Finally:

1) Bit Coin is built by using Cryptography (Elliptical Curve Cryptography), and we know that Cryptography is a **main topic in information security science**. So, the **Information Technology** is the main material for building the Bit Coins.

2) To Keep Transaction SECURE, Bit Coin Systems use the Cryptography Signature. Which is also **Information Technology**.

3) The Encoding of the Block Chain uses the SHA –Hash Algorithm . It is also **Information Technology Technique**.

Thus, **Information Technology** is the material and the base of the future digital currency. So, IT behinds the Cryptocurrencies.

**Thank You...**

**Dr. Mohammad Abu Omar**

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