

# Cryptocurrency Exchange Interface Platform that Translate Human to Robotic Intelligence

R. Roja<sup>1</sup>, B. Peevitha<sup>2</sup>, A. Bhagya Lakshmi<sup>3</sup>

<sup>1</sup>Computer Science Department, Velammal Engineering College Chennai, Tamil Nadu, India

<sup>2</sup>Assistant Professor, Department of Computer Science and Engineering, Velammal Engineering College, Chennai, Tamil Nadu, India

## ABSTRACT

A digital currency is a medium of exchange that's generated, hold on and transferred electronically. Digital currencies is not generally related to any country's government or depicted in physical forms just like the coins and notes of ancient currencies. As of currently there are so many Digital currencies that ruling everywhere the globe. Some of Digital Currencies are Bitcoin, Namecoin, Peercoin, Ripple, Ethereum etc. There are so many Cryptocurrency exchanges that support Digital currencies for trading. But every Cryptocurrency Exchanges provides only few currencies and tokens. Our main objective for this paper is to produce one platform for traders and investors that integrates all their interested exchanges and corresponding cryptocurrencies and tokens into single platform wherever crypto traders will use it for all their commerce wants and apply their intelligence programmatically whereas commerce.

**Keywords :** Digital Currency, Cryptocurrencies, Exchanges, Trading

## I. INTRODUCTION

This paper describes regarding Digital Currencies that is additional innovative in modern times. Digital Currency could be a sort of currency obtainable solely in digital type, not in physical like Banknotes and Coins. Its exhibit properties the same as physical currencies, but permits for fast group action and borderless transfer-of-ownership. It will be differentiated as Electronic money or Digital Currency or Electronic Currency. However Digital Currency is a variety of Virtual currency that's electronically created and stored. Some sort of digital currency are cryptocurrencies, however not all of them are, in order that leads United States to a lot of specific definition of Cryptocurrency, that could be a set of digital currencies that uses cryptography for security in order that is very troublesome to counterfeit. There are numerous digital currencies

that is used for trading. Some of the digital currencies are Bitcoin, Namecoin, Altcoin, Peercoin, Ripple, Ethereum etc. There are 7400 cryptocurrency exchanges that supports digital currency for commercialism across the globe. But every cryptocurrency exchanges offer solely certain tokens and coins. There's no single exchanges that supports Bitcoin, Altcoin and tokens for trading. Trader have register with every exchanges and do their trading manually. If merchant have more than two exchanges or quite ten coins it will be terribly troublesome for manual commercialism with every exchanges and every coins.

Our main objective of our plan is to supply one platform for the digital currency traders and investors that integrates all their interested exchanges and corresponding cryptocurrencies and tokens into single platform wherever crypto traders

will use it for all their trading needs and apply their intelligence programmatically whereas trading.

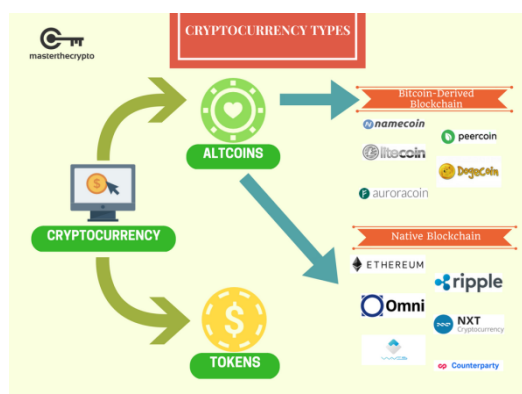


Figure 1

## II. EXISTING SYSTEM

As we all know that there are numerous cryptocurrency exchanges for trading however some exchanges have some sort of digital currency and different exchanges have some kind of currencies. For example Coinbase which is the quickest growing exchanges nowadays, adding over one hundred thousand new users everyday. It is traded solely Bitcoin, Litecoin and Ethereum. It is no surprise that new Bitcoin consumers use Coinbase. Their automatic system permits new users to verify the account within minutes, allowing you to get Bitcoin instantly. This is because there are one among the few exchanges operating beneath U.S. laws. With the management of U.S. government users will trust Coinbase to handle their funds safely. It doesn't trade all the digital currencies therefore it affects the user who has totally different coins while trading. There is no existing for our project however still some existing system that slightly match our idea.

Some of the existing systems are

- ✓ Coinbase is the biggest exchange that has only traded Bitcoin, Ethereum and Litecoins.
- ✓ Some of the Exchanges provides only certain currencies and tokens for trading.
- ✓ Each exchanges have its own limitations to bring new coins.

- ✓ If traders are interested to trade or invest different currencies and tokens, they need to register with every exchanges and do the trading manually.
- ✓ If traders has over two exchanges or additional ten coins it'll be terribly troublesome to manually select trading with every exchanges and with every coins.

## DISADVANTAGES:

- ✓ User cannot trade manually.
- ✓ User have to wait for sometimes until the value of digital currencies get increased.
- ✓ It is not user-friendly to make a system easy.

## III. PROPOSED SYSTEM

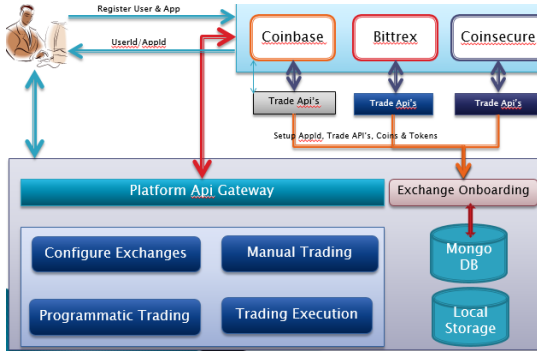
In order to increase the confidence for the trading customers we offer a rigorous and user-friendly system. Here we tend to integrate all exchanges together in one exchange to create simple to the customers for trading. Actually it's a web application platform. It may be utilized by individual or group of cryptocurrency traders.

Traders configure and on-board their interested exchanges, coins and tokens to this platform. By registering this application with actual exchanges and obtain the AppKey for every exchanges and configure as a part of this platform. It will Integrate every exchanges trading Api's to this platform. This application platform has offer a comfortable way to select exchanges, coins, price tickers and do their tradings.

## ADVANTAGES:

- Improved security
- Application performance is increased.
- Manual trading is feasible
- Complete user-friendly system

**IV. MODULES IDENTIFICATION:**



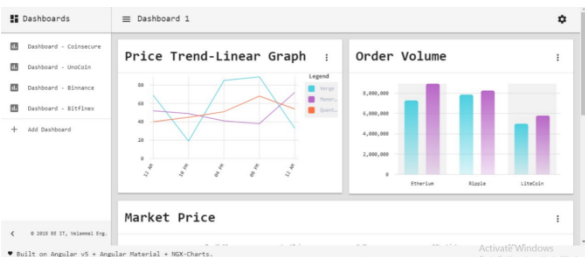
**Figure 2**

- ✓ Setting up Crypto Exchanges.
- ✓ Getting Api Gateway
- ✓ Configuration of Exchange Integrations
- ✓ Execution of Trade
- ✓ Programmatic Execution of Trade

**Module Description:**

**Setting up Crypto Exchanges:**

It Identifies required exchanges, and Api's provided by every exchanges, Coins, Tokens offered in every exchanges and manually configure those into the system. and Provide options to edit the same.



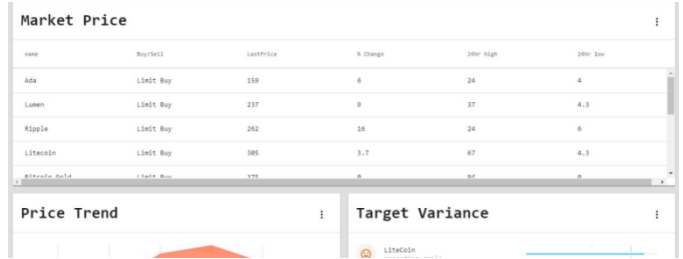
**Figure 3**

**Getting Api gateway:**

In this module we've to create Api Interface that will be used to communicate with external exchanges, this will identify what exchange and what URL it's communicate. this will be behaving as gateway for all external system integrations.

**Configuration of exchange information**

This module provides user interface, where user can pickup their interested exchanges, Coins/Tokens on those exchanges, that will be used for trade setup.



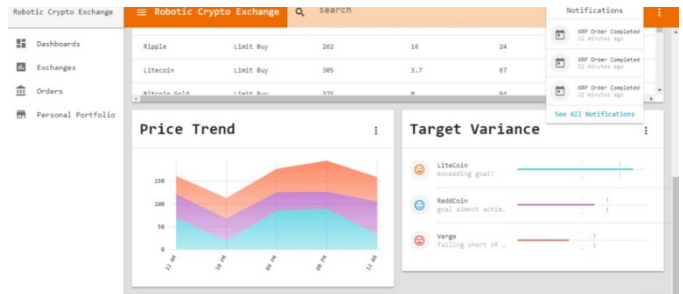
**Figure 3**

**Execution of trade:**

This module specify that if user wish to execute trade ,the user ought to choose the exchange, coins and price and obtain the confirmation for trade execution.

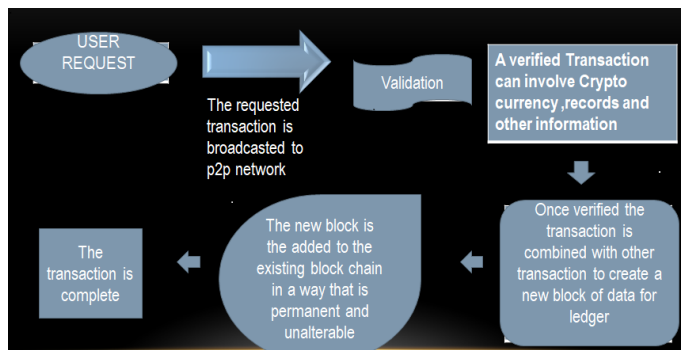
**Programmatic Execution of trade:**

If user desires to Setup trade,they need to choose the exchange, coins and price then this modules shows when to start the trade execution what will be order execution type (Immediate, price increase, till cancellation..etc)



**Figure 4**

**V. DATA FLOW DAIGRAM**



**Figure 5**

In this diagram we've got shown the entire flow of our project. Here the user sends the request for validation. This requested transaction is broadcasted to p2p network and then validation get starts .After validation ,a verified transaction will involve cryptocurrency,records and different data.Once verified,the transaction is combined with different transaction to make new block of data for ledger.That new block is added to the existing block chain in a way that's permanent and unalterable.After finishing their validation and verification the transaction gets complete.

### VI. HOW IT WORKS

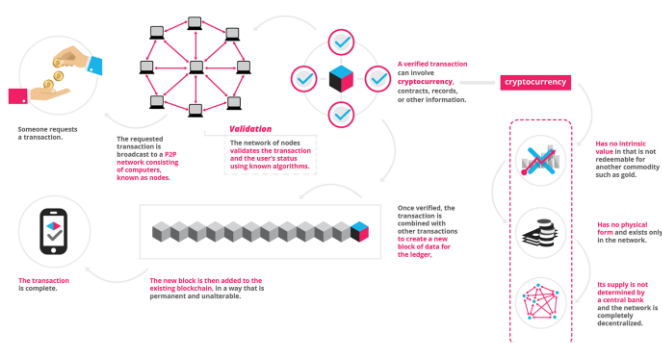


Figure 6

In each project we've to know how the project works and how to control the system.Here I have given a brief description regarding our project.

- Step1: User request for transaction.
- Step2: The requested transaction broadcasted to p2p network consisting of computers referred to as nodes.
- Step3: after requested transaction then it go for validation.In validation the network of nodes validate the transaction and users status using known algorithmic program.
- Step4: after validation, it get verified.A verified transaction will involve cryptocurrency ,contracts, records and different information. In cryptocurrency ,it has no intrinsic value in that is not redeemable for another artifact like gold and it no

physical form.it exist only in network. its supply is not determined by central bank and therefore the network is totally decentralized .

- Step5: Once verified the transaction is combined with another transaction to form new block of the information for ledgers.
- Step6: The new block is then added to existing block chain in a way that's permanent and unalterable.
- Step7: eventually the transaction get completes.

### VII. BACKGROUND

In background , we've use block chain technology. "The blockchain is an associate incorruptable digital ledger for economic transactions which will be programmed to record not simply money transactions but virtually everything valuable."



Figure 7

A blockchain is that the structure of information that represents a money accounting system, or a record of a transaction. every transaction is digitally signed to confirm its credibility which nobody tampers with it, therefore the ledger itself and also the existing transactions inside it are assumed to be of high integrity. the real magic comes, however, from these digital ledger entries being distributed among a deployment or infrastructure. These extra nodes and layers within the infrastructure serve the aim of providing a agreement regarding the state of a transaction at any given second; all of them have copies of the prevailing authenticated ledger distributed amongst them.

## VIII. HOW WILL IT WORKS

Once a brand new transaction or an edit to an existing transaction comes in to a blockchain, usually a majority of the nodes at intervals a blockchain implementation should execute algorithms to evaluate and verify the history of the individual blockchain block that's proposed. If a majority doesn't bear in mind to the addition or modification of the accounting entry, it's denied and not added to the chain. This distributed agreement model is what permits blockchain to run as a distributed ledger while not the necessity for a few central, unifying authority saying what transactions are valid and (perhaps additional importantly) which of them aren't.

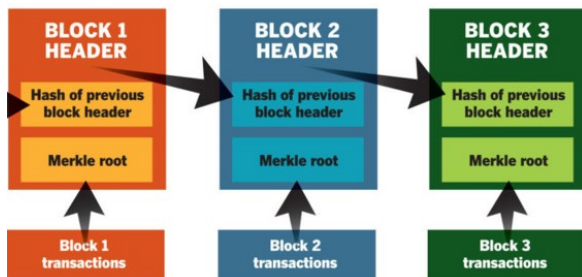


Figure 8

## IX. CONCLUSION

Digital currency is electronic money. It's not available as bills or coins. Cryptocurrencies are a type of digital currency created using computer algorithms. The most popular cryptocurrency is Bitcoin. No single organization, such as a central bank, creates digital currencies. Digital currencies are based on a decentralized, peer-to-peer (P2P) network. The "peers" in this network are the people that take part in digital currency transactions, and their computers make up the network. Thus we have given a new application for all digital currencies available together in one exchange. User can easily trading their coins in one exchange. This application will be very useful for future generation who has different coins.

## X. REFERENCES

- [1]. S. Valfells, J.H Egilsson, "Minting Money With Megawatts Point of View]", Proceedings of the IEEE, vol. 104, no. 9, 2016.
- [2]. M. Taylor, B, "Bitcoin and the age of bespoke silicon", Proceedings of the 2013 International Conference on Compilers Architectures and Synthesis for Embedded Systems CASES '13, 2013.
- [3]. Technical background of version 1 Bitcoin addresses, August 2016, onlineAvailable: [https://en.bitcoin.it/wiki/Technical\\_background\\_of\\_version1](https://en.bitcoin.it/wiki/Technical_background_of_version1).
- [4]. D. Kondor, M. Posfai, I. Csabai, G. Vattay, "Do the rich get richer? an empirical analysis of the bitcoin transaction network", PloS one, vol. 9, no. 2, pp. e86197, 2014.
- [5]. D. Drainville, "An analysis of the bitcoin electronic cash system", Dec. 2012.
- [6]. F. Tschorsch, B. Scheuermann, "Bitcoin and beyond: A technical survey on decentralized digital currencies", 2015.