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# AI BASED CRYPTO MINING FOR TRADITIONAL WORK STATION SYSTEMS

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## ABSTRACT

Globally all the companies have made huge capital investment on their workstation computers, mostly this huge investment has not utilized efficiently which will leads to a less profit to investment ratio, In order to make high profit to investment ratio, workstation computer's unused time should be efficiently used by crypto currency mining with the help of artificial intelligence which will earn extra income to the owners. The proposed AI (LSAI48266x) board has the ability to tackle the above discussed problems with PC mining by the Intelligent AI algorithm. In this proposed system we introduce an artificial intelligence board based on several parameters this will decide the crypto currency mining whenever it seems employee is not present in the workstation computers.

## I INTRODUCTION

Crypto mining refers to the process of gaining cryptocurrencies by solving cryptographic equations with the use of high-power computers. The solving process comprises verifying data blocks and adding transaction records to a public record (ledger) known as a blockchain[1,8]. That is secured by applying complex encryption techniques.

Cryptocurrencies use the decentralised approach of distribution and for verification of transactions, it takes the assist of cryptographic algorithms[3,9-11]. Hence there's no valuable authority, neither is there a centralised ledger. To get new cash at the ledger includes fixing complex mathematical puzzles that help in verifying digital foreign money transactions after which updating them at the decentralised blockchain ledger. As the final results of this work, the miners acquire pay with cryptocurrency. This approach is referred to as mining because it lets in new cash into circulation.

As mining is processed, high-performance computers (preferably) solve complex mathematical equations[1-2][7]. The first encoder to crack the entire code can authorize the transaction. As a result of the service, miners receive small amounts of cryptocurrencies. Once the miner successfully solves the math problem and verifies the transaction, it adds the data to the public ledger called the blockchain. The algorithm acquires various cryptocurrencies including Bitcoin, Ethereum and Dogecoin.It assures that no single authority will become powerful enough to run the show. This process, performed by miners, is a crucial part of adding new blocks of transaction data to the blockchain. A new block is only added to the blockchain system when a miner presents a new successful proof of work[2,4-6]. This happens every 10 minutes on the network. Proofofwork aims to prevent users from printing extra coins they didn't earn or double-spending.

## II RELATED DOCUMENTS

**DSorin Soviany et al**., proposed the paper titled **"Machine Learning Cryptomining Reconnaissance and Malware Detection Methodology"** published in **2020** by IJRITCC in North Eastern State, USA.The paper insist on a machine learning methodology for android. Detection and detection of malware, including crypto mining applications using the blockchain. The design is based on a hierarchical classification method with multiple decision levels. It is proposed to apply a combination of functional and statistical features for data classification to provide high-performing malware. recognition process.Hackers have two main ways to trick a victim's computer into secretly mining cryptocurrency. One is to trick victims into uploading crypto mining code to their computers. This is done using phishing-like tactics: victims receive a legitimate-looking email encouraging them to click a link. The link runs code that places the crypto mining script on the computer. The script then runs in the background while the victim works.The other method is to paste a script into a website or an advertisement that is sent to multiple websites. Once the victims visit the website or the infected advertisements appear in their browsers, the script gets executed automatically. No code is stored on victims' computers. Whichever method is used, the code runs complex mathematical problems on victims' computers and sends the results to a server controlled by Hacker . The proposed idea uses machine learning to detect the infected files that the hacker injects has and can remove the infected virus files.

**Hacopian Dolatabadi et al.,** proposed the paper entitled **"Methods for Flexible Management of Blockchain-Based Cryptocurrencies in Electric Markets and Smart Grids"** published in **2020** by IJRITCC at the Japan Advanced Institute of Science and Technology. The paper insist on providing recommendations for the efficient use of digital cryptocurrencies in current and future smart energy systems to face the challenging aspects of this new technology. This paper presents the existing problems and challenges of smart grids in the presence of blockchain-based cryptocurrencies and proposes some innovative approaches for the efficient integration and management of blockchain-based cryptocurrencies in smart grids. The growing trend of using blockchain-based cryptocurrencies in modern communities offers several benefits, but also poses several challenges [9,14-19]for energy markets and energy systems in general.This document aims to provide recommendations for the efficient use of digital cryptocurrencies in current and future smart energy systems to address the challenging aspects of this emerging technology. This paper presents the existing problems and challenges of smart grids in the presence

of blockchain-based cryptocurrencies and proposes some innovative approaches for the efficient integration and management of blockchain-based cryptocurrencies in smart grids. It also includes some recommendations to improve the performance of smart grids in the presence of digital cryptocurrencies and outlines some future research directions.

**Jonah Burgees et al.,** proposed the article titled **"MANIC: Multi-Step Evaluation for Crypto Miners"** published in **2020** by IJRITCC. The article insist on a CryptoJacking website detection system. It uses regular expressions compiled according to the API structure of various miner families. This allows for the detection of crypto mining scripts and the extraction of parameters that could be used to detect suspicious behavior of related to CryptoJacking.When MANiC was used to analyze the top 1 million Alexa websites, it detected 887 malicious URLs, containing miners from 11 different families, and showed favorable results compared to CryptoJacking-related research. Bitcoin mining becomes more computationally intensive over time, requiring greater computational resources to compete for an ever-decreasing reward. dedicated hardware such as ASICs (Application Specific Integrated Circuits), is now the equipment of choice specially designed and implemented for mining purposes. Miners found that the rising resource costs associated with mining Bitcoin made the potential reward less attractive, but cybercriminals found a way to exploit Bitcoin mining and the profits it generates from crypto mining production and distribution can to exploit. This malware infects a victim's computer and sets up software to mine cryptocurrencies, redirecting all proceeds directly to the attacker without incurring any resource costs.With a large botnet of infected computers or an abundance of processing power, this can be a very lucrative attack[12-13]. The solution proposed by for this solution is a multi-level crypto mining evaluation to prevent hackers from stealing our cryptocurrency.

## III PROPOSED SYSTEM

The proposed AI (LSAI48266x) board has the ability to tackle the above discussed problems with PC mining by the Intelligent AI algorithm. In this proposed system we introduce an artificial intelligence board based on several parameters this will decide the crypto currency Mining whenever it seems employee is not present in the workstation computers While it's certainly possible to load up good hash, set it all up and leaves it running for years, it's best to do a smart AI LSAI48266x hardware board to get the most out of your CPU without using too much electricity.

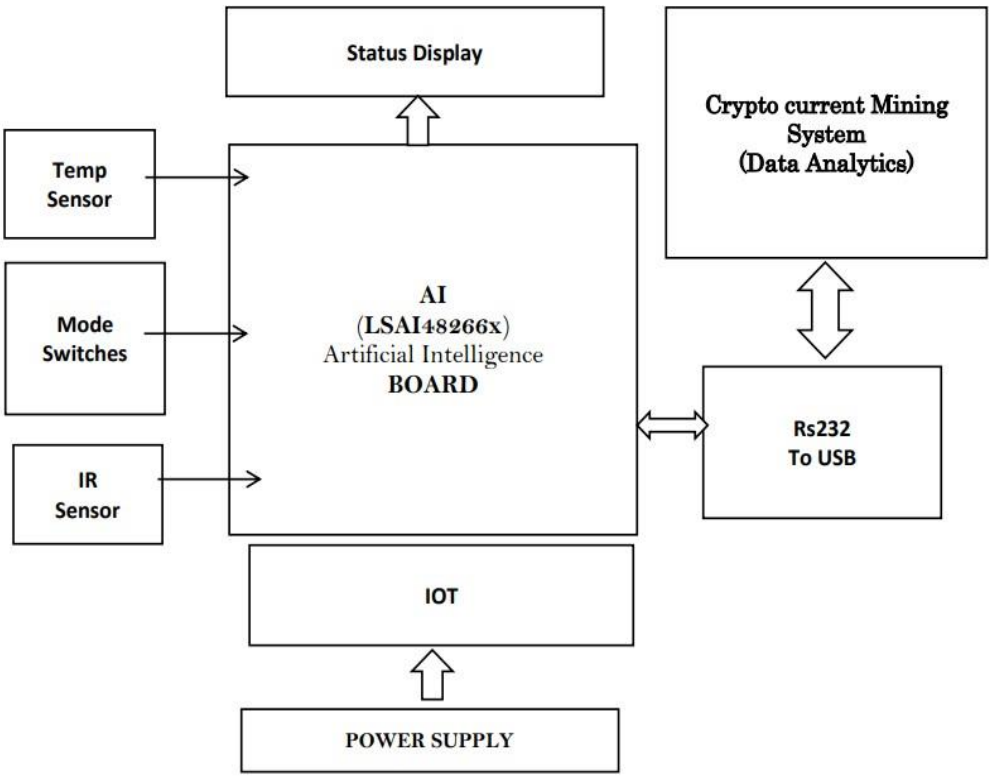


**Figure 1** Block diagram of the proposed system.

## IV RESULTS AND DISCUSSION

The results and discussion obtained by the proposed AI mining Kit is discussed in this section with respect to the performance metrics.

In this section, we estimate performances of the proposed method, AI Based crypto mining for traditional work station system.

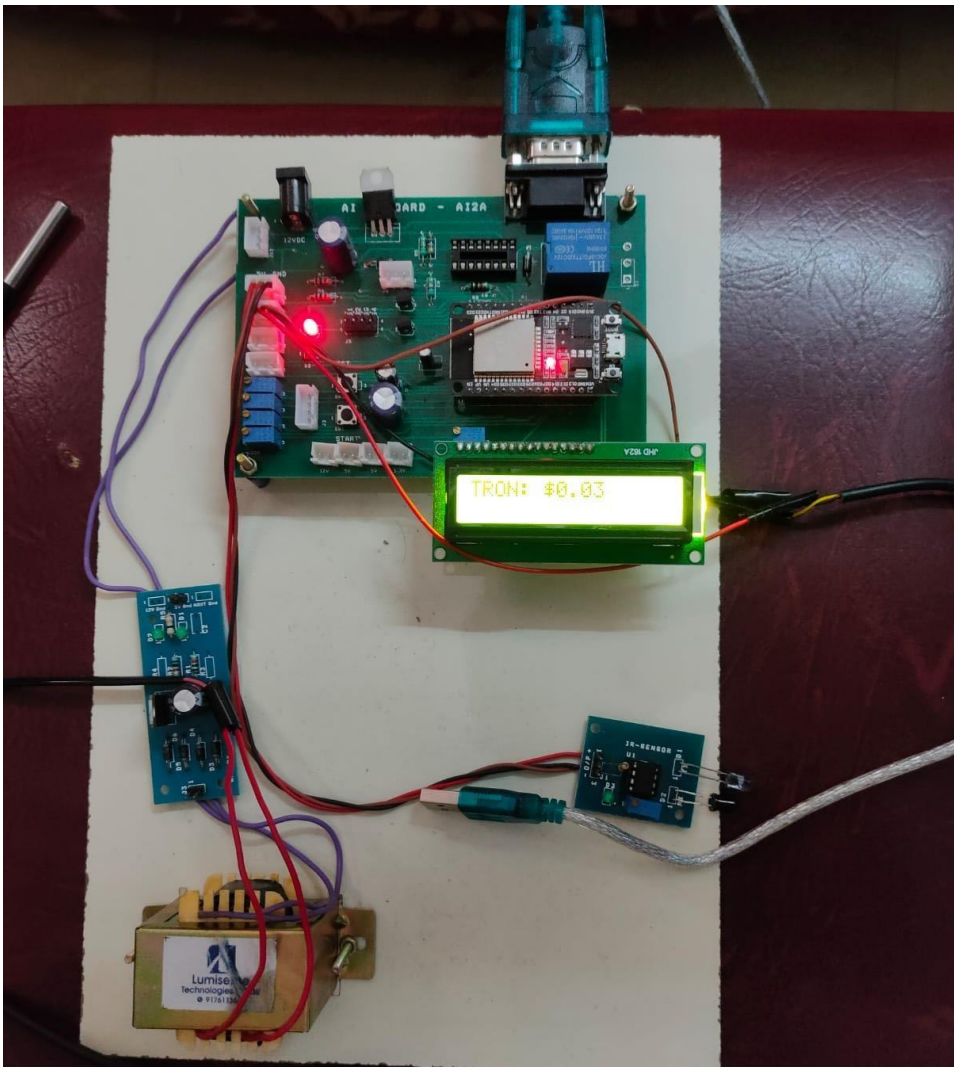


**Figure 4.1** Experimental setup for the proposed system

The AI Board is connected to a temperature sensor and a IR sensor. A transformer is used to provide a stable power supply to the mining kit. As soon as the kit is connected to the computer , The market price of the crypto currencies will be displayed in the display.

The market price for the different crypto currencies like Bitcoin , Ethereum , Tron and Doge will be displayed in the display . When the kit is connected to the computer , it will automatically search for the market price for the crypto currencies and the price will be displayed.

The temperature sensor will sense the surrounding temperature and the temperature will be displayed in the display. The IR sensor will sense if there 32 is any obstacle in front of the sensor. When temperature is less than 40 degree Celsius and there is no obstacle in front of the IR sensor, the mining process will start

A software named as miner is created to start the mining process initially . The mining status can be monitered using that software . When we start the mining process in that software , when

the given conditions is met the mining kit will start the mining process . We can see value of crypto currency which is mined by the mining kit in our software.

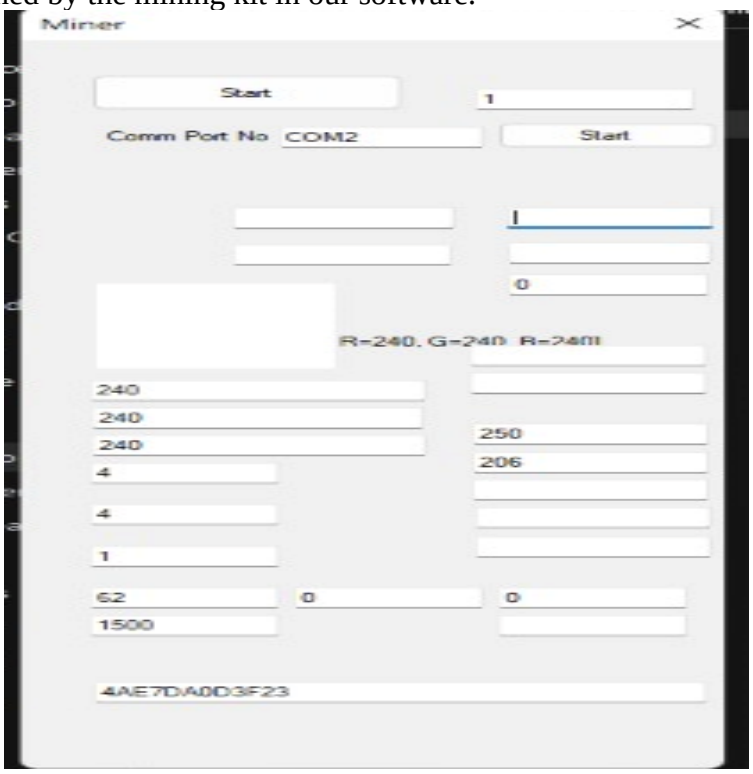


**Figure 4.2** Simulation output of the system.

**Figure 4.3** Software output for the system.

We can transfer the crypto currency to our bank account by linking the software to our crypto account by using the given link generated in the wazirx application.

## V CONCLUSION

The future clearly depends upon the crypto currency as it is more secure and it is the fastest way of transaction. So when the IT companies use our idea to mine the crypto currency using the unused systems during the free time. The proposed AI (LSAI48266x) board has the ability to tackle the above discussed problems with PC mining by the Intelligent AI algorithm. In this proposed system we introduce an Artificial Intelligence board based on several parameters this will decide the Crypto Currency Mining whenever it seems employee is not present in the Workstation Computers While it's certainly possible to load up good hash, set it all up and leaves it running for years, it's best to do a smart AI LSAI48266x hardware board to get the most out of your CPU without using too much electricity. In this paper we defined a full methodological framework to design, develop and evaluate malware detection and recognition solutions for Android platform, while considering advanced Machine Learning approaches with a suitable optimization procedure. This is an ongoing research in which the proposed methodology includes some data analytics for the best feature generation in order to support a high performance design and modeling process and finally to implement an optimized solution. Further work must be done especially as concerning the considered features for malware recognition, as much as there is a fast evolution in this domain, with new malware and potential malicious apps for Android devices and OS. Anyway, the Machine Learning approach becomes currently the most applied approach to design various security solutions for a continuously enlarging applications area.

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