2nd International Conference On Smart Technologies For Smart Nation (SmartTechCon 2023)

Proposal for a Special Session on

Blockchain with Artificial Intelligence in Finance and Governance

Objective:

To enable researchers to present papers which specially focuses on developing Smart Blockchain Systems for Financial Institutions.

Description:

Artificial intelligence and blockchain may complement one another. Information is precious, and it must not only be held securely, but it must also be transmitted securely. Because of its strong and stable storage, blockchain can safely transmit messages to artificial intelligence in these instances. Artificial intelligence training and testing needs extremely high computing power. Computing power, like information, may be distributed on a blockchain system. While these two systems can complement one another, they will surely have a long-lasting and substantial influence in a variety of industries. While many businesses and enterprises employ the advantages of both AI and blockchain independently, combining the two results in significantly improved attributes.

Blockchain's digital record provides visibility further into architecture behind AI as well as the origin of the data it employs, therefore overcoming the challenges of explainable AI. The use of blockchain to record and disseminate AI models creates an audit log, and the combination of blockchain with AI can improve data security. AI can read, comprehend, and correlate data at lightning speed, offering a better intellectual ability to blockchain-based business. Blockchain enables AI to give more useful insight, regulate data consumption and model distribution, and establish a credible and transparent data market by enabling access to vast amounts of data both within and outside the company.

The ongoing expansion of the Decentralized Finance (DeFi) ecosystem, which, according to Defipulse, is presently approaching US\$ 100 billions of "frozen value," is perhaps less well covered by the media but is nonetheless important to note. Blockchain and artificial intelligence are revolutionizing the financial services business by facilitating trust, reducing friction from multi - party transactions, and increasing transaction speed. Consider the loan application procedure. Applicants give permission to view personal documents in blockchain ledger. Trust in the data, as well as automated methods for reviewing the application, contribute to speedier closings and higher customer satisfaction.

The core idea behind blockchain for digital financial products is the development of distinctive digital assets that extend beyond conventional financial assets and allow you to market any sort of asset

more quickly, liquidly, affordably and reduce the complexity associated with the production, purchase, and sale of securities by managing the whole lifetime of the digital assets on a safe and scalable platform.

According to PwC, artificial intelligence will add \$15.7 trillion to the global economy by 2030, resulting in a 14 percent increase in global GDP. Gartner predicts that the commercial value contributed by blockchain technology will reach \$3.1 trillion by the same year. As both the technologies may affect and operate on data in distinct ways, combining them makes logic and has the potential to take data exploitation to new heights. Simultaneously, incorporating AI and machine Learning into blockchain, and inversely, can improve blockchain's underlying design and increase AI's potential.

Applications of blockchain and AI include smart computing power, creation of diverse data sets, data protection, data monetization and auditing the AI decision making process. Combining the two technologies provides the ability to exploit data in unimaginable ways. Data is essential for the creation and improvement of AI systems, and blockchain safeguards this data while also allowing us to verify all transitional stages AI takes to draw inferences from the data and enables individuals to monetize their created data.

According to Jupiter Research Report, by 2030, banks will be able to save up to US\$ 27 billion on cross-border settlement operations thanks to the adoption of blockchain technology, which will result in a more than 11% cost reduction. With over 10x cost benefits over established systems, Ethereum has already proven disrupting economics. Financial organizations agree that over the next ten years, distributed ledger technology would save banks and other significant financial institutions billions of dollars.

The session focusses on following topics, but not limited to

- 1. AI for Blockchain Open Risks and Challenges
- 2. Strategies for Design and deployment of a more secured and user centred Blockchain with AI
- 3. Integrating Blockchain with Reinforced Deep Learning for Industry 5.0
- 4. Artificially Intelligent Blockchain for Insurance and other financial transactions
- 5. Resource Management in Blockchain-Enabled Financial Transaction
- 6. Data Management in Blockchain-Enabled Financial Transaction
- 7. Improved Trust Framework and Data Integrity in Blockchain using Artificial Intelligence
- 8. Improved Protocols for Blockchain using AI
- 9. Token Transactions in blockchain using AI

- 10. Blockchain based AI for Predicting Stock Market Trend
- 11. Quality of Service
- 12. Security and Privacy Policies of 6G and beyond.

Chair:

Dr A M Viswa Bharathy, Professor, CSE, GITAM University, Bengaluru.

Co-Chair:

Dr V Ramachandran, Assistant Professor, CSE, GITAM University, Bengaluru.