(19) INDIA

(22) Date of filing of Application :20/02/2024 (43) Publication Date : 01/03/2024

## (54) Title of the invention: BLOCKCHAIN-BASED FILE SHARING AND EDITING SYSTEM AND METHOD THEREOF

| (51) International classification | :H04L0009320000, G06F0021620000,<br>H04L0067060000, G06F0016176000,<br>H04L0009080000 | (71)Name of Applicant:  1)Chitkara University Address of Applicant: Chitkara University, Chandigarh-Patiala |
|-----------------------------------|---|---|
| (86) International                | :NA   | National Highway, Village Jhansla, Rajpura, Punjab - 140401,  |
| Application No                    | :NA   | India. Patiala  |
| Filing Date                       |   | Name of Applicant : NA  |
| (87) International                | : NA  | Address of Applicant : NA   |
| Publication No                    |   | (72)Name of Inventor:   |
| (61) Patent of Addition           | on , <sub>NIA</sub>   | 1)SRIVASTAVA, Anshum  |
| to Application Numb               | 61) Patent of Addition<br>o Application Number :NA<br>Filing Date                     | Address of Applicant :Chitkara University, Chandigarh-Patiala   |
| Filing Date                       |   | National Highway, Village Jhansla, Rajpura, Punjab - 140401,  |
| (62) Divisional to                | .NI A   | India. Patiala  |
| Application Number                | :NA   |   |
| Filing Date                       | :NA   |   |

## (57) Abstract:

A blockchain-based file sharing and editing system (100) introduces an approach to secure and collaborative data management. With a distributed network of nodes (102) across a blockchain network (106), a processing unit (104) orchestrates file storage in a decentralized manner, associating each file with a unique cryptographic identifier. A consensus processing mechanism validates and records transactions related to file sharing and editing activities on the blockchain network (106). Identity verification and access control, governed by predefined permissions, ensure secure collaboration. Authorized users from a predefined set can collaboratively edit files, with all editing activities recorded as transparent transactions. The consensus processing incorporates real-time monitoring techniques, enabling immediate alerts for any suspicious file-related activities, and embedded contract processing facilitates the execution of predefined rules, ensuring controlled and secure file sharing, editing, and access control. Further, the system (100) allows explicit user participation in the consensus process, while file fragments are stored in a decentralized manner, enhancing security.

No. of Pages: 24 No. of Claims: 10