(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.20244 1001497 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND SYSTEM FOR REVOLUTIONIZING IOT DATA PROCESSING AND ANALYTICS WITH 5G ADVANCEMENTS

(51) International classification	:H04L0067120000, G06N0020000000, H04L0067100000, G06K0009620000, G06F0009500000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
METHOD AND SYSTEM FOR REVOLUTIONIZING IOT DATA PROCESSING AND ANALYTICS WITH 5G ADVANCEMENTS ABSTRACT The invention presents a novel method and system for transforming IoT data processing and analytics through the integration of 5G advancements. Leveraging the capabilities of a 5G communication network, the method involves real-time reception of IoT data from diverse devices. Distributed edge computing resources perform dynamic workload optimization based on 5G network conditions, including latency, bandwidth, and signal strength. This ensures efficient and adaptive processing of data, enhancing the overall system performance. The processed data is transmitted to a central analytics server for comprehensive analysis and storage. The system also incorporates machine learning modules for algorithm adaptation and a security module for real-time threat analysis, further fortifying the robustness of the IoT ecosystem. The inventive approach facilitates unparalleled responsiveness, scalability, and security in IoT data processing, marking a significant advancement in the domain.

No. of Pages : 15 No. of Claims : 9