

(54) Title of the invention : SYSTEM FOR IOT-ENABLED REAL-TIME MONITORING AND MANAGEMENT OF PHARMACEUTICAL MEDICINE STORAGE AND DISTRIBUTION

<p>(51) International classification :H04L0009320000, G06Q0010080000, G06Q0010083300, G06Q0010087000, G06Q0030018000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Dr. Harpreet Singh Address of Applicant :Professor, Faculty of Pharmacy, IFTM University, Lodhipur Rajput, Moradabad, Uttar Pradesh, India ----- 2)Dr. Rekha Tarasingh Rajput 3)Mr.A.Raja 4)Dr. Aarti Sangwan 5)Dr. Preeti Singh Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Harpreet Singh Address of Applicant :Professor, Faculty of Pharmacy, IFTM University, Lodhipur Rajput, Moradabad, Uttar Pradesh, India ----- 2)Dr. Rekha Tarasingh Rajput Address of Applicant :Associate Professor, Sharda School of Pharmacy, Agra and Assistant Dean (Research and Development Cell, Sharda University, Agra), Sharda University, Agra. ----- 3)Mr.A.Raja Address of Applicant :Assistant professor / Computer Science and Engineering (Cyber Security), United Institute of Technology, Coimbatore,Tamilnadu, India --- ----- 4)Dr. Aarti Sangwan Address of Applicant :Assistant Professor, Department of Computer Science and Engineering KR Mangalam University, Sohna Road, Gurugram, Haryana 122103 - ----- 5)Dr. Preeti Singh Address of Applicant :Assistant Professor, School of Pharmacy, Sharda University, Greater Noida 201310 -----</p>
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(57) Abstract :

The present invention relates to a system for real-time monitoring and management of pharmaceutical medicine storage and distribution using Internet of Things (IoT) technology. The system comprises a plurality of IoT-enabled sensor modules configured to measure environmental parameters such as temperature, humidity, and light within storage facilities and during transportation. Sensor data is aggregated by gateway devices, which transmit the data to a cloud-based platform for real-time analysis, visualization, and alert generation upon deviation from predefined thresholds. The system further includes GPS tracking for real-time geolocation monitoring of shipments, and a user interface accessible via mobile and web applications for remote management by authorized stakeholders. Optional features include edge computing for localized decision-making, blockchain integration for tamper-proof record-keeping, and automated compliance reporting. The invention ensures pharmaceutical product integrity, regulatory compliance, and complete supply chain visibility

No. of Pages : 8 No. of Claims : 6