

(51) International classification :G06N0005040000, H04W0004700000, H02N0002180000, H04W0004020000, H04W0004380000

(86) International Application No :NA
 Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
 Filing Date :NA

(62) Divisional to Application Number :NA
 Filing Date :NA

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(57) Abstract :
 The "Intelligent Energy-Collecting Device for Autonomous Internet of Things (IoT) Networks" represents a groundbreaking advancement in energy harvesting technology tailored for autonomous IoT operations. This device integrates adaptive energy harvesting, machine learning-driven analytics, dynamic adjustment mechanisms, and predictive analytics to optimize energy utilization and sustain device autonomy in real-time. By capturing ambient energy from diverse sources and employing sophisticated analytics, the device dynamically adjusts energy harvesting strategies and power distribution to meet current and future energy demands. This innovation promises to enhance the autonomy, sustainability, and operational intelligence of self-governing IoT devices, ushering in a more efficient and environmentally conscious IoT landscape

No. of Pages : 25 No. of Claims : 8