

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/05/2025

(21) Application No.202531048293 A

(43) Publication Date : 23/05/2025

(54) Title of the invention : INTELLIGENT IOT-ENABLED SYSTEM FOR REAL-TIME ENERGY CONSUMPTION MONITORING AND OPTIMIZATION

(51) International classification	:G06Q0050060000, G06N0020000000, G06N0005040000, G05B0015020000, G06Q0010063700	(71) <b>Name of Applicant :</b> <b>1)Pranita Mohapatro</b> Address of Applicant :Assistant Professor, Department of CSE, Centurion University of Technology and Management, Paralakhemundi, Odisha. -----  <b>2)Ms. Subhasmita Pani</b> <b>3)Mr. Mahesh Kumar Dakua</b> <b>4)N. Viswanadha Reddy</b> <b>5)Dr. V. Anantha Lakshmi</b> <b>6)Dr. Debanjan Mukherjee</b> <b>7)Dr. Katta Subba Rao</b> <b>8)Dr. R. Senthamil Selvan</b> <b>Name of Applicant : NA</b> <b>Address of Applicant : NA</b> <b>(72)Name of Inventor :</b> <b>1)Pranita Mohapatro</b> Address of Applicant :Assistant Professor, Department of CSE, Centurion University of Technology and Management, Paralakhemundi, Odisha, India. -----  <b>2)Ms. Subhasmita Pani</b> Address of Applicant :Assistant Professor, Department of CSE, Seemanta Engineering College, Mayurbhanj, Jharpokharia, Odisha, India. ----- <b>3)Mr. Mahesh Kumar Dakua</b> Address of Applicant :Assistant Professor, Department of CSE, Giet University, Gunupur, Odisha, India. ----- <b>4)N. Viswanadha Reddy</b> Address of Applicant :Sr. Asst. Professor, Department of CSE (AIML), Nadimpalli Satyanarayana Raju Institute of Technology, Visakhapatnam, Andhra Pradesh, India. ----- <b>5)Dr. V. Anantha Lakshmi</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Andhra Loyola Institute of Engineering and Technology, Vijayawada, Andhra Pradesh, India. ----- <b>6)Dr. Debanjan Mukherjee</b> Address of Applicant :Assistant Professor, Department of Electrical Engineering, Brainware University, Kolkata-125. ----- <b>7)Dr. Katta Subba Rao</b> Address of Applicant :Professor, Department of CSE, B V Raju Institute of Technology, Narsapur, Medak (District), Telangana. ----- <b>8)Dr. R. Senthamil Selvan</b> Address of Applicant :Associate Professor, Department of ECE, Annamacharya Institute of Technology and Sciences, Tirupati, Andhra Pradesh, India. -----
(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	

(57) Abstract :

The present invention discloses an intelligent IoT-enabled system for real-time energy consumption monitoring and optimization across residential, commercial, and industrial settings. The system comprises a network of smart sensors, wireless communication modules, a machine learning-based analytics engine, and an automated control unit. It continuously collects energy usage data, analyzes consumption patterns, detects anomalies, and optimizes device operation by executing intelligent control strategies. The system supports integration with renewable energy sources, offers user-friendly interfaces for monitoring and customization, and facilitates efficient energy utilization, cost savings, and sustainability through adaptive and predictive energy management.

No. of Pages : 18 No. of Claims : 10