Home (http://ipindia.nic.in/index.htm)   About Us (http://ipindia.nic.in/about-us.htm)   Who's Who (http://ipindia.nic.in/whos-who-page.htm)
Policy & Programs (http://ipindia.nic.in/policy-pages.htm)   Achievements (http://ipindia.nic.in/achievements-page.htm)
RTI (http://ipindia.nic.in/right-to-information.htm)   Feedback (https://ipindiaonline.gov.in/feedback)   Sitemap (shttp://ipindia.nic.in/itemap.htm)
Contact Us (http://ipindia.nic.in/contact-us.htm)   Help Line (http://ipindia.nic.in/helpline-page.htm)

Skip to Main Content

inPASS
Indian Patent Advanced Search System

(http://ipindia.nic.in/index.htm)

INTELLECTUAL PROPERTY INDIA
PATENTS | DESIGNS | TRADE MARKS
GEOGRAPHICAL INDICATIONS

(http://ipindia.nic.in/ind

Patent Search

Invention Title	SMART IOT SOLUTIONS ENHANCING EDUCATIONAL EFFICIENCY WITH AI
Publication Number	27/2024
Publication Date	05/07/2024
Publication Type	INA
Application Number	202441050731
Application Filing Date	02/07/2024
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06N0020000000, G06Q0050200000, H04L0067120000, G09B0019000000, G06N0005040000

Inventor

Name	Address	Country	Nat
Dr. Sajja Suneel	Assistant Professor, Department of CSE(Data Science), Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana - 500043, India.	India	Indi
Renu	TMIMT, Teerthanker Mahaveer University Moradabad	India	Indi
Mr Rahul Laxman Pawar	DESIGNATION: Assistant Professor DEPARTMENT: CS & IT COLLEGE FULL NAME : Jain(Deemed-to-be University) CITY: Bengaluru STATE: Karnataka PIN CODE: 560041	India	Indi
Dr Rekha K R	Professor Department of ECE SJB Institute of Technology Bangalore Karnataka 560060	India	Indi
Dr Geethanjali N	Assistant Professor Department of ECE SJB Institute of Technology Bangalore Karnataka 560060	India	Indi
Dr Yogesh Mahajan	DESIGNATION: Assistant professor DEPARTMENT: COLLEGE FULL NAME : Symbiosis Centre for Management & Human Resource Development, Symbiosis International University, Pune CITY: Pune STATE: Maharashtra PIN CODE:411057	India	Indi
Mr. Christian Rafael Quevedo Lezama	Gender: Male Country of Birth: Peru Designation: Electrical and Electronics Engineer College Name with address: Universidad Nacional Mayor de San Marcos Avenida Carlos Germán Amezaga 375 - Cercado de Lima Pin: 15037 District: San Borja State: Peru Country: Peru	Peru	Indi
Dr. Veeresh S J	DESIGNATION: Assistant Professor DEPARTMENT: Department of Studies in Food Technology COLLEGE FULL NAME : Davangere University CITY: Davanagere STATE: Karnataka PIN CODE: - 577 007	India	Indi
Dr C M Velu	Professor Dept of AI & DS Saveetha Engg College Thandalam, Chennai. Tamil Nadu. Pin 602 105. India	India	Indi

Applicant

Name	Address	Country	Nat
Dr. Sajja Suneel	Assistant Professor, Department of CSE(Data Science), Institute of Aeronautical Engineering, Dundigal, Hyderabad, Telangana - 500043, India.	India	Indi
Renu	TMIMT, Teerthanker Mahaveer University Moradabad	India	Indi
Mr Rahul Laxman Pawar	DESIGNATION: Assistant Professor DEPARTMENT: CS & IT COLLEGE FULL NAME : Jain(Deemed-to-be University) CITY: Bengaluru STATE: Karnataka PIN CODE: 560041	India	Indi
Dr Rekha K R	Professor Department of ECE SJB Institute of Technology Bangalore Karnataka 560060	India	Indi
Dr Geethanjali N	Assistant Professor Department of ECE SJB Institute of Technology Bangalore Karnataka 560060	India	Indi
Dr Yogesh Mahajan	DESIGNATION: Assistant professor DEPARTMENT: COLLEGE FULL NAME : Symbiosis Centre for Management & Human Resource Development, Symbiosis International University, Pune CITY: Pune STATE: Maharashtra PIN CODE:411057	India	Indi
Mr. Christian Rafael Quevedo Lezama	Gender: Male Country of Birth: Peru Designation: Electrical and Electronics Engineer College Name with address: Universidad Nacional Mayor de San Marcos Avenida Carlos Germán Amezaga 375 - Cercado de Lima Pin: 15037 District: San Borja State: Peru Country: Peru	PERU	Indi
Dr. Veeresh S J	DESIGNATION: Assistant Professor DEPARTMENT: Department of Studies in Food Technology COLLEGE FULL NAME : Davangere University CITY: Davanagere STATE: Karnataka PIN CODE: - 577 007	India	Indi
Dr C M Velu	Professor Dept of AI & DS Saveetha Engg College Thandalam, Chennai. Tamil Nadu. Pin 602 105. India	India	Indi

Abstract:

Smart IoT Solutions Enhancing Educational Efficiency with AI ABSTRACT The invention "Smart IoT Solutions Enhancing Educational Efficiency with AI" introduces a novel integration of Internet of Things (IoT) devices and Artificial Intelligence (AI) technologies to revolutionize educational environments. This system addresses the inefficiencie traditional education by providing real-time data insights, personalized learning experiences, and optimized resource management. Core components include environmen sensors, smart boards, and wearable devices that collect comprehensive data on classroom conditions and student engagement. Advanced AI algorithms, comprising mac learning models and natural language processing (NLP) modules, process this data to predict student performance, personalize learning content, and offer automated fee The invention features real-time feedback mechanisms that continuously monitor and adjust teaching strategies based on student engagement and environmental condit Adaptive learning platforms tailor educational materials to individual student needs, enhancing the learning experience. Additionally, AI-driven automation streamlines administrative processes, such as enrollment and grading, and optimizes the use of resources like classroom space and equipment. Security and privacy are paramount, w robust measures including data encryption and strict access control to protect sensitive information. The system adheres to relevant data protection regulations, ensuring compliance and safeguarding student privacy.

Complete Specification

Description:Smart IoT Solutions Enhancing Educational Efficiency with AI
FIELD OF THE INVENTION
The present invention relates generally to educational technology and, more specifically, to smart Internet of Things (IoT) solutions integrated with Artificial Intelligence (techniques aimed at enhancing educational efficiency. The invention utilizes IoT devices and AI algorithms to optimize various aspects of the educational process, includi but not limited to curriculum delivery, personalized learning experiences, resource management, and administrative tasks within educational institutions.
BACKGROUND OF THE INVENTION
In recent years, the landscape of educational technology has undergone significant transformation, driven by advancements in digital innovation, connectivity, and the growing influence of Artificial Intelligence (AI). Traditional educational systems, while effective in delivering knowledge, have often struggled with scalability, personalizati and adaptability to diverse learning needs. Conventional classrooms, reliant primarily on textbooks and face-to-face instruction, face challenges in keeping pace with the rapidly evolving digital age. This gap has spurred the exploration and integration of smart technologies, particularly IoT and AI, into educational environments.
The Internet of Things (IoT) has emerged as a pivotal technology in revolutionizing various sectors, including education. IoT refers to a network of interconnected devices embedded with sensors and software that collect and exchange data over the internet. In educational settings, IoT devices range from smart boards and tablets to wear technologies and environmental sensors deployed across campuses. These devices facilitate real-time data collection on student engagement, classroom conditions, and resource utilization, offering educators invaluable insights into teaching methodologies and learning outcomes.
Simultaneously, Artificial Intelligence (AI) has gained prominence for its ability to analyze vast amounts of data, recognize patterns, and make data-driven decisions. In

View Application Status