

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



### Patent Search

Invention Title	AN INTEGRATED APPROACH TO ENVIRONMENTALLY FRIENDLY SMART CITIES WITH THEIR CONVERGENT AI, IOT, AND BIG DATA TECHN SOLUTIONS
Publication Number	33/2023
Publication Date	18/08/2023
Publication Type	INA
Application Number	202341036833
Application Filing Date	28/05/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMMUNICATION
Classification (IPC)	A61K 393950, G06N 030200, G06Q 100400, H04W 043800, H04W 120600
Inventor	

#### Address Name Country Associate professor, Department of Chemistry, Nagarjuna Government College (A), Nalgonda, Telangana, India India Dr. Anthati Sreenivasulu Assistant professor, Department of MCA, Dayanand Sagar college engineering, Bengaluru, 560111, Bengaluru urban, India Mahendra Kumar B Karnataka, India B Lakshmi Prasanna Assistant Professor, Electronics and Communication Engineering, Institute of Aeronautical Engineering, Hyderabad-India 500043, Medchal- Malkajgiri, Telangana, India Pranshu Saxena Resource Person, Department of Civil Engineering, UIET, Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar India Pradesh.226025, India K. Siva Kumar Assistant Professor, Department of Computer Science & Engineering, Bapatla Engineering College, Bapatla,522102, India Andhra Pradesh, India Dr.Maaz Allah Khan Resource Person, Civil Engineering Department, UIET Babasaheb Bhimrao Ambedkar University, (A Central India University), Lucknow, Uttar Pradesh, India Thakur Sonali Madhav Assistant professor, Chemistry, KTHM College, Nashik-422002, Maharashtra, India India Assistant Professor, Computer Department, VPPCOE & VA, Sion, Mumbai. Pin 400022, Maharashtra, India India Alone Vinod N Dr Dwaitha Jagadish Assistant Professor, Department of Civil Engineering, FET, Jain Deemed to be University, Ramnagara-562112, India Bangalore, Karnataka, India Ashwini Kumar Saini Assistant Professor, CSED Govind Ballabh Pant Institute of Engineering and Technology Ghurdauri Pauri Garhwal, India Uttarakhand, India Anthony Savio Herminio da Founder Owner, Trading Equations, 54/C, Xell, Bastora, Bardez - Goa (403507), North Goa, Goa, India India Piedade Fernandes Mallikarjun Yaramadhi Assistant Professor, Department of Computer Science and Engineering, Institute of Aeronautical Engineering, India Dundigal, Hyderabad 500043, Medchal Malkajgiri, Telangana, India

Applicant

Name	Address	Countr
Dr. Anthati Sreenivasulu	Associate professor, Department of Chemistry, Nagarjuna Government College (A), Nalgonda, Telangana, India	India
Mahendra Kumar B	Assistant professor, Department of MCA, Dayanand Sagar college engineering, Bengaluru, 560111, Bengaluru urban, Karnataka, India	India
B Lakshmi Prasanna	Assistant Professor, Electronics and Communication Engineering, Institute of Aeronautical Engineering, Hyderabad-500043, Medchal- Malkajgiri, Telangana, India	India
Pranshu Saxena	Resource Person, Department of Civil Engineering, UIET, Babasaheb Bhimrao Ambedkar University, Lucknow, Uttar Pradesh,226025, India	India
K. Siva Kumar	Assistant Professor, Department of Computer Science & Engineering, Bapatla Engineering College, Bapatla,522102, Andhra Pradesh, India	India
Dr.Maaz Allah Khan	Resource Person, Civil Engineering Department, UIET Babasaheb Bhimrao Ambedkar University, (A Central University), Lucknow, Uttar Pradesh, India	India
Thakur Sonali Madhav	Assistant professor, Chemistry, KTHM College, Nashik-422002, Maharashtra, India	India
Alone Vinod N	Assistant Professor, Computer Department, VPPCOE & VA, Sion, Mumbai. Pin 400022, Maharashtra, India	India
Dr Dwaitha Jagadish	Assistant Professor, Department of Civil Engineering, FET, Jain Deemed to be University, Ramnagara-562112, Bangalore, Karnataka, India	India
Ashwini Kumar Saini	Assistant Professor, CSED Govind Ballabh Pant Institute of Engineering and Technology Ghurdauri Pauri Garhwal, Uttarakhand, India	India
Anthony Savio Herminio da Piedade Fernandes	Founder Owner, Trading Equations, 54/C, Xell, Bastora, Bardez - Goa (403507), North Goa, Goa, India	India
Mallikarjun Yaramadhi	Assistant Professor, Department of Computer Science and Engineering, Institute of Aeronautical Engineering, Dundigal, Hyderabad 500043, Medchal Malkajgiri, Telangana, India	India

#### Abstract:

The invention relates to an integrated approach to environmentally friendly smart cities with their convergent AI, IOT, and Big Data Technologies and Solutions. The command significant attention in recent years as a promising solution for addressing the complex challenges of urbanization and environmental sustain present disclosure explores the integration and convergence of various technologies, including Artificial Intelligence (AI), Internet of Things (IoT), and Big Data, in the convergence environmentally friendly smart cities. The integration of AI, IoT, and Big Data technologies enables cities to gather real-time data from a multitude of source sensors, devices, and digital platforms. This data-driven approach empowers city authorities to make informed decisions, optimize resource utilization, and improve to quality of life for resident. The integration of AI, IoT, and Big Data technologies presents a promising approach towards developing environmentally friendly smart citical leveraging these convergent technologies, cities can harness the power of data-driven insights to optimize resource utilization, reduce environmental impact, and environmental sustainability of urban areas.

## **Complete Specification**

# Description:FIELD OF THE INVENTION

[01] The embodiments of the present invention generally relates to the field of Big Data Technologies, IOT and Artificial Intelligence. More particularly, the present ir relates to an integrated approach to environmentally friendly smart cities with their convergent AI, IOT, and Big Data Technologies and Solutions.

BACKGROUND OF THE INVENTION

[02] The following description of related art is intended to provide background information pertaining to the field of the disclosure. This section may include certain of the art that may be related to various features of the present disclosure. However, it should be appreciated that this section be used only to enhance the underst of the reader with respect to the present disclosure, and not as admissions of prior art.

[03] One of the primary challenges is the issue of data privacy and security. With the proliferation of IoT devices and the collection of vast amounts of data, concern regarding the protection of personal information and sensitive data. Unauthorized access, data breaches, and the misuse of collected data are significant risks that be addressed to ensure public trust and acceptance of smart city initiatives.

1041 Another problem is the lack of interoperability and standardization among different IoT devices and platforms. The heterogeneous nature of IoT technologies of

View Application Status



Terms & conditions (http://ipindia.gov.in/terms-conditions.htm) Privacy Policy (http://ipindia.gov.in/privacy-policy.htm)
Copyright (http://ipindia.gov.in/copyright.htm) Hyperlinking Policy (http://ipindia.gov.in/hyperlinking-policy.htm)
Accessibility (http://ipindia.gov.in/accessibility.htm) Archive (http://ipindia.gov.in/archive.htm) Contact Us (http://ipindia.gov.in/contact-us.htm)
Help (http://ipindia.gov.in/help.htm)