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Patent Search

Invention Title	A MODERN DIGITAL FRAMEWORK FOR CITIES BASED ON BLOCK CHAIN AND FOG COMPUTING TECHNOLOGIES
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Inventor

Name	Address	Country
Mr. Narender Chinthamu	MIT (Massachusetts Institute of Technology), CTO Candidate, Enterprise Architect, USA	U.S.A.
Mrs. Minal Pardey	Aasara, Kolhe Layout-1, Gajanan Maharaj Mandir Road, Darwha Road, Yavatmal, Maharashtra, 445001, India	India
Dr. S.Veena	Professor, SRM Institute of Science and Technology, Ramapuram, Chennai-600089, Tamilnadu, India	India
Dr. Jyoti Kharade	Associate Professor, Bharati Vidyapeeth's Institute of Management and Information Technology, Navi Mumbai, India	India
Mr. V Mahidhar Reddy	Assistant Professor, Department of Mechanical Engineering, Institute of Aeronautical Engineering (IARE), Hyderabad, Telangana, India	India
Dr. Nithya Ravi	Associate Professor, Department of CSE, Vivekanandha College of Engineering for Women, Tiruchengode-637205, Tamilnadu, India	India
Prof. Rambhau Baburao Lagdive	Assistant Professor, Department of Computer Engineering, Trinity Academy of Engineering, Pune, India	India
Prof. Santoshi Vitthalrao Solapure	Assistant Professor, TSSM's BSCOER, Pune Road, Pune-411023, India	India
G Jagadeeswar Reddy	Professor and Principal, Newton's Institute of Engineering, Macherla, Andhra Pradesh, India	India
Dr. P. Bhuvaneswari	Assistant Professor, Department of Electronics and Communication Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai, Tamilnadu, India	India

Applicant

Name	Address	Country
Mr. Narender Chinthamu	MIT (Massachusetts Institute of Technology), CTO Candidate, Enterprise Architect, USA	U.S.A.
Mrs. Minal Pardey	Aasara, Kolhe Layout-1, Gajanan Maharaj Mandir Road, Darwha Road, Yavatmal, Maharashtra, 445001, India	India
Dr. S.Veena	Professor, SRM Institute of Science and Technology, Ramapuram, Chennai-600089, Tamilnadu, India	India
Dr. Jyoti Kharade	Associate Professor, Bharati Vidyapeeth's Institute of Management and Information Technology, Navi Mumbai, India	India
Mr. V Mahidhar Reddy	Assistant Professor, Department of Mechanical Engineering, Institute of Aeronautical Engineering (IARE), Hyderabad, Telangana, India	India
Dr. Nithya Ravi	Associate Professor, Department of CSE, Vivekanandha College of Engineering for Women, Tiruchengode-637205, Tamilnadu, India	India
Prof. Rambhau Baburao Lagdive	Assistant Professor, Department of Computer Engineering, Trinity Academy of Engineering, Pune, India	India
Prof. Santoshi Vitthalrao Solapure	Assistant Professor, TSSM's BSCOER, Pune Road, Pune-411023, India	India
G Jagadeeswar Reddy	Professor and Principal, Newton's Institute of Engineering, Macherla, Andhra Pradesh, India	India
Dr. P. Bhuvaneswari	Assistant Professor, Department of Electronics and Communication Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi, Chennai, Tamilnadu, India	India

Abstract:

The proposed invention is a comprehensive digital framework for modern urban management, integrating blockchain and fog computing technologies. This system r
urban data handling by combining the security and transparency of blockchain with the efficiency and speed of fog computing. It offers a decentralized approach to r
wide range of urban services and infrastructures, from traffic and energy management to public safety and democratic governance. This system is designed to be sca
adaptable, and secure, addressing the diverse and evolving needs of modern cities. It represents a significant advancement in smart city technologies, paving the way
sustainable, efficient, and responsive urban environments.

Complete Specification

Description:This invention pertains to the field of urban digital infrastructure and smart city technologies. Specifically, it encompasses the development and
implementation of a modern digital framework for cities, leveraging the synergy of blockchain and fog computing technologies. This framework is designed to enha
urban operations, governance, and services through decentralized data management, improved security, real-time processing, and efficient resource utilization. The
aims to revolutionize how cities manage data and interact with their citizens, infrastructure, and various stakeholders, thereby contributing significantly to the field
city technologies and urban digital transformation.
Background of the invention:
The background of a proposed system that integrates blockchain and fog computing for modern digital cities is multifaceted, reflecting the rapid evolution of urban
environments and the growing need for advanced technological solutions to manage these complexities. In the past decades, urban areas have expanded exponen
becoming hubs of population, economic activity, and cultural exchange. This urbanization, while offering numerous benefits, has also introduced significant challen
terms of infrastructure management, resource distribution, public service delivery, and environmental sustainability.
Traditional centralized systems for managing urban data and services are increasingly proving inadequate in addressing these challenges. They often suffer from
bottlenecks in data processing, vulnerabilities to cyberattacks, and inefficiencies in resource utilization. Moreover, the centralization of data raises concerns about p
and data ownership, particularly in an era where data is often described as the new oil.
In response to these challenges, there has been a growing interest in leveraging emerging technologies to enhance urban management. Blockchain technology, kno
its role in cryptocurrencies, offers a decentralized and secure way of handling data. Its immutable ledger ensures data integrity and transparency, which is crucial fo

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