



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



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

### Patent Search

Invention Title	A SYSTEM FOR OPTIMIZING STATISTICAL METHODS FOR BIG DATA AND RELIABILITY ANALYSIS
Publication Number	51/2023
Publication Date	22/12/2023
Publication Type	INA
Application Number	202341079470
Application Filing Date	22/11/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q0020400000, G06F0016250000, G06F0016270000, G06K0009620000, G06F0016220000

#### Inventor

Name	Address	Country	Nationality
Dr. M. Ayyappan	Associate Professor, Department of Mathematics, Francis Xavier Engineering College (An Autonomous Institution), Tirunelveli, Tamilnadu, India, Pincode: 627003	India	India
Dr. Karthik Chinnasamy	Assistant Professor, Department of Mathematics, Faculty of Engineering and Technology, SRM Institute of Science and Technology (Deemed to be University), Kattankulathur Campus, Chengalpattu, Tamilnadu, India, Pincode: 603203	India	India
Dr. Sathish S	Assistant Professor Senior Scale, Department of Mathematics, Presidency University, Bangalore, Karnataka, India, Pincode: 560064	India	India
Dr. Atchuta Rao Sadu	Associate Professor, Department of Data Engineering, MVGR College of Engineering (A), Vizianagaram, Andhra Pradesh, India, Pincode: 535005	India	India
Mr. T.Ch. Anil Kumar	Head & Assistant Professor, Department of Mechanical Engineering, Vignan's Foundation for Science Technology and Research, Vadlamudi, Guntur, Andhra Pradesh, India, Pincode: 522213	India	India
Dr. K. Selvakumari	Associate Professor and Head, Department of Mathematics, Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences, Chennai, Tamilnadu, India, Pincode: 602105	India	India
Dr. Siddesha M S	Assistant Professor, Department of Mathematics, Faculty of Engineering and Technology, Jain Deemed-to-be-University, Global Campus, Ramanagara, Karnataka, India, Pincode: 562112	India	India
Dr. Animesh Kumar Sharma	Assistant Professor, Department of Mathematics, Faculty of Science and Technology, The ICFAI University, Raipur, Chhattisgarh, India Pincode: 492001	India	India
Dr. P. Srilatha	Associate Professor, Department of Mathematics, Institute of Aeronautical Engineering, Hyderabad, Telangana, India, Pincode: 500043	India	India
Mr. Veeresh Malagi	Assistant Professor, Mathematics Department, FET-Jain (Deemed to be University), Kanakapura Road, Kanakapura, Ramanagara, Karnataka, India, Pincode: 562112	India	India

#### Applicant

Name	Address	Country	Nationality
Dr. M. Ayyappan	Associate Professor, Department of Mathematics, Francis Xavier Engineering College (An Autonomous Institution), Tirunelveli, Tamilnadu, India, Pincode: 627003	India	India
Dr. Karthik Chinnasamy	Assistant Professor, Department of Mathematics, Faculty of Engineering and Technology, SRM Institute of Science and Technology (Deemed to be University), Kattankulathur Campus, Chengalpattu, Tamilnadu, India, Pincode: 603203	India	India
Dr. Sathish S	Assistant Professor Senior Scale, Department of Mathematics, Presidency University, Bangalore, Karnataka, India, Pincode: 560064	India	India
Dr. Atchuta Rao Sadu	Associate Professor, Department of Data Engineering, MVGR College of Engineering (A), Vizianagaram, Andhra Pradesh, India, Pincode: 535005	India	India
Mr. T.Ch. Anil Kumar	Head & Assistant Professor, Department of Mechanical Engineering, Vignan's Foundation for Science Technology and Research, Vadlamudi, Guntur, Andhra Pradesh, India, Pincode: 522213	India	India
Dr. K. Selvakumari	Associate Professor and Head, Department of Mathematics, Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences, Chennai, Tamilnadu, India, Pincode: 602105	India	India
Dr. Siddesha M S	Assistant Professor, Department of Mathematics, Faculty of Engineering and Technology, Jain Deemed-to-be-University, Global Campus, Ramanagara, Karnataka, India, Pincode: 562112	India	India
Dr. Animesh Kumar Sharma	Assistant Professor, Department of Mathematics, Faculty of Science and Technology, The ICFAI University, Raipur, Chhattisgarh, India Pincode: 492001	India	India
Dr. P. Srilatha	Associate Professor, Department of Mathematics, Institute of Aeronautical Engineering, Hyderabad, Telangana, India, Pincode: 500043	India	India
Mr. Veeresh Malagi	Assistant Professor, Mathematics Department, FET-Jain (Deemed to be University), Kanakapura Road, Kanakapura, Ramanagara, Karnataka, India, Pincode: 562112	India	India

**Abstract:**

The proposed system, titled "A System for Optimizing Statistical Methods for Big Data and Reliability Analysis," is a comprehensive solution designed to address the challenges associated with the analysis of large-scale data. This system integrates advanced algorithms for efficient data processing, including Principal Component Analysis for dimensionality reduction and methods for calculating Mean Time Between Failures in reliability analysis. It features dynamic scalability to adjust to different data volumes and complexities, and processes various data types including structured, unstructured, and real-time data. The user-friendly interface makes advanced data analysis accessible to a wider range of users. Additionally, the system includes real-time data processing capabilities, robust security protocols, and mechanisms to reduce environmental impact. It is also equipped to facilitate research and development across different fields. This system is adaptable for integration into various industry infrastructures, enhancing data-driven decision-making processes and offering significant advancements in the field of data analytics.

**Complete Specification**

Description: The proposed invention, titled "A System for Optimizing Statistical Methods for Big Data and Reliability Analysis," is designed to enhance and streamline the processing of large datasets. Utilizing advanced algorithms, the system aims to improve accuracy and efficiency in statistical analysis, particularly focusing on reliability assessments. By integrating innovative techniques, it seeks to address the complexities inherent in big data, ensuring more reliable and insightful outcomes in various applications. This system is poised to be a significant tool in fields where large-scale data analysis is critical, such as finance, healthcare, and scientific research.

**Background of the invention:**

The background of the invention titled "A System for Optimizing Statistical Methods for Big Data and Reliability Analysis" is rooted in the ever-increasing importance and complexity of big data in various industries. In today's data-driven world, the ability to accurately analyze and interpret vast amounts of information is crucial. Traditional statistical methods, while effective for smaller datasets, often fall short when applied to big data due to its volume, velocity, variety, and veracity. This inadequacy has prompted the need for more sophisticated analytical systems capable of handling large-scale data efficiently while maintaining high accuracy in results.

The concept of big data transcends mere volume; it encompasses the rapid generation of data, the diversity of data types, and the truthfulness or reliability of the data sources. Industries such as finance, healthcare, scientific research, and even government agencies generate and rely on enormous datasets for decision-making, policy formulation, and strategic planning. However, the challenge lies in not just storing this data but in analyzing it effectively to extract meaningful insights.

The traditional statistical methods, which were the cornerstone of data analysis for decades, are often limited in handling the complexity and scale of big data. They are challenged by the high dimensionality of the data, the presence of non-linear relationships, and the need for real-time processing. Additionally, these methods may not adequately address issues of data quality and reliability, which are paramount in making informed decisions.

[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>)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019