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.

Patent Search

Invention Title	SELF-HEALING NETWORK ARCHITECTURES WITH INTEGRATED AI-BASED ANOMALY DETECTION
Publication Number	51/2023
Publication Date	22/12/2023
Publication Type	INA
Application Number	202341077370
Application Filing Date	14/11/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06N0020000000, G06K0009620000, G06N0003080000, H04L0041160000, G06N0003040000

Inventor

Name	Address	Country
Dr.Kalyankumar Dasari	HOD & Associate Professor, Department of CSE-CS, Chalapathi Institute of Technology, A.R.Nagar, Mothadaka, Guntur District, Andhra Pradesh, India. Pin Cod:522016	India
Dr.Aruna Kumari Manda	Assistant Professor, Department of Mathematics, KKR & KSR Institute of Technology & Sciences, Guntur, Andhra Pradesh, India. Pin Code:522004	India
Dr.K.V.R.B. Prasad	Professor in the Department of E.E.E, Chadalawada Ramanamma Engineering College (Autonomous), Chadalawada Nagar, Renigunta Road, Tirupati, Tirupati District, Andhra Pradesh, India. Pin Code:517 506	India
Dr.Karthikeyan Palaniappan	Associate Professor, Department of CSE, Center for System Design, Chennai Institute of Technology, Chennai, Tamil Nadu, India. Pin Code: 600069	India
Dr.K.Hari Krishna	Professor and HOD, Department of EEE, Kallam Haranadhareddy Institute of Technology, Guntur, Andhra Pradesh, India. Pin Cod:522019	India
Dr.Jatothu Brahmaiah Naik	Professor, Electronics and Communication Engineering, Narasaraopet Engineering College, Palanadu District, Andhra Pradesh, India. Pin Code: 522616	India
Dr.J.Srinu Naick	Professor, Department of Electrical and electronics Engineering, Chadalawada Ramanamma Engineering College, Tirupati, Chittoor, Andhra Pradesh, India. Pin Code:517520	India
Dr.Urlam Devee Prasan	Professor & HOD, Department of Computer Science and Engineering, Aditya Institute of Technology and Management, Tekkali, Srikakulam District, Andhra Pradesh, India. Pin Code:532201	India
Dr. D. Rajendra Prasad	Professor, Department of Electronics & Communication Engineering, St,Ann's College of Engineering & Technology, Chirala, Bapatla District, Andhra Pradesh, India. Pin Code:523187	India
Mr.G.Kiran Kumar	Assistant Professor, Department of ECE, Institute of Aeronautical Engineering, Hyderabad, Telangana, India. Pin Code:500043	India

Applicant

Name	Address	Country
Dr.Kalyankumar Dasari	HOD & Associate Professor, Department of CSE-CS, Chalapathi Institute of Technology, A.R.Nagar, Mothadaka, Guntur District, Andhra Pradesh, India. Pin Cod:522016	India
Dr.Aruna Kumari Manda	Assistant Professor, Department of Mathematics, KKR & KSR Institute of Technology & Sciences, Guntur, Andhra Pradesh, India. Pin Code:522004	India
Dr.K.V.R.B. Prasad	Professor in the Department of E.E.E, Chadalawada Ramanamma Engineering College (Autonomous), Chadalawada Nagar, Renigunta Road, Tirupati, Tirupati District, Andhra Pradesh, India. Pin Code:517 506	India
Dr.Karthikeyan Palaniappan	Associate Professor, Department of CSE, Center for System Design, Chennai Institute of Technology, Chennai, Tamil Nadu, India. Pin Code: 600069	India
Dr.K.Hari Krishna	Professor and HOD, Department of EEE, Kallam Haranadhareddy Institute of Technology, Guntur, Andhra Pradesh, India. Pin Cod:522019	India
Dr.Jatothu Brahmaiah Naik	Professor, Electronics and Communication Engineering, Narasaraopet Engineering College, Palanadu District, Andhra Pradesh, India. Pin Code: 522616	India
Dr.J.Srinu Naick	Professor, Department of Electrical and electronics Engineering, Chadalawada Ramanamma Engineering College, Tirupati, Chittoor, Andhra Pradesh, India. Pin Code:517520	India
Dr.Urlam Devee Prasan	Professor & HOD, Department of Computer Science and Engineering, Aditya Institute of Technology and Management, Tekkali, Srikakulam District, Andhra Pradesh, India. Pin Code:532201	India
Dr. D. Rajendra Prasad	Professor, Department of Electronics & Communication Engineering, St,Ann's College of Engineering & Technology, Chirala, Bapatla District, Andhra Pradesh, India. Pin Code:523187	India
Mr.G.Kiran Kumar	Assistant Professor, Department of ECE, Institute of Aeronautical Engineering, Hyderabad, Telangana, India. Pin Code:500043	India

Abstract:

The invention relates to a self-healing network architecture that incorporates an integrated AI-based system for anomaly detection. The system provides a method an for real-time network monitoring and management, leveraging artificial intelligence and machine learning to detect, analyze, and respond to network anomalies. The designed to autonomously execute corrective actions to mitigate issues, such as rerouting traffic or isolating affected nodes, thereby maintaining network integrity an performance with minimal human intervention. The network's AI capabilities are dynamic, evolving from continuous learning and adaptation to improve the detectio response processes. This scalable system ensures robust and efficient operation of network infrastructures of varying sizes and complexities, paving the way for mor digital ecosystems.

Complete Specification

Description:The field of invention for a system titled "Self-Healing Network Architectures with Integrated AI-Based Anomaly Detection" would likely be related to cor networking and artificial intelligence. Specifically, the system would be in the field of advanced network management and cybersecurity.
This system would pertain to methods and apparatus for implementing self-healing mechanisms within a computer network. It would involve the integration of arti intelligence (AI) technologies to monitor, detect, and address anomalies or disruptions in network performance. The objective would be to create a network that car autonomously identify potential issues such as security breaches, faults, or inefficiencies and initiate corrective actions without human intervention.
The invention would incorporate AI algorithms, such as machine learning or deep learning, to analyze network traffic and performance data continuously. By learnin historical data, the system could predict and react to network states indicative of issues. Additionally, the self-healing aspect would include predefined policies and procedures for the network to follow when anomalies are detected, allowing for real-time remediation and maintenance of network integrity and performance.
Background of the invention:
Traditionally, network management has been a largely reactive and manual endeavor. Network administrators would monitor systems for disruptions, security brea performance bottlenecks, and respond accordingly. This approach, however, is no longer viable given the scale and sophistication of contemporary networks. With advent of the Internet of Things (IoT), cloud computing, and the proliferation of mobile devices, the volume of data traversing networks has skyrocketed, as have the of vulnerability.
Moreover, the types of threats have evolved, becoming more advanced and harder to detect with conventional means. Cyber threats can now emerge from within t network due to compromised devices or evolve quickly to bypass traditional security measures. The dynamic nature of modern network traffic also means that wha

View Application Status

Department of Industrial
Policy and Promotion
Government of India