



Gokaraju Rangaraju Institute of Engineering and Technology

Department of Computer Science and Engineering

PATENTS

S.No.	Title of the Patent	File Number	Date	Names of the Patenter	Status
2022-23					
1.	An Artificial Intelligence (AI) Network Based-Host Intrusion Detection System for IOT Devices	202341029324 A	05/05/2023	B.Padma Vijetha Dev	2023 Published
2.	Fractional-Order Polar Harmonic Transforms with Funk Singular Value Decomposition for Secure Image Watermarking Technique	202341007288 A	10/02/2023	Dr. Neha Nandal	2023 Published
3.	Advanced Embedded Technology And Machine Learning Based Medical Waste Segregation System	202341002758 A	27/01/2023	C. Sravani	2023 Published
4.	System and Method for Enabling Internet of Things – Based Viscosity Alert System	202341000354 A	20/01/2023	Dr P.Varaprasada rao	2023 Published
5.	Implementation of Machine Learning Techniques For Attack And Anomaly Detection In Internet Of Things (IOT)Sensors And Sites	202241073450 A	06/01/2023	Mallikarjuna Rao Gundavarapu	2023 Published
6.	Design Study Of Hydraulic Fixture For Cylinder Head Machine	202241073496	30/12/2022	Dr. Y. Krishna Bhargavi	2022 Published

(54) Title of the invention : An Artificial Intelligence (AI) Network Based-Host Intrusion Detection System for IOT Devices

(51) International classification :G06F 215500, G06N 030400, G16H 502000, H04L 671200, H04W 047000

(86) International Application No :PCT//
 Filing Date :01/01/1900

(87) International Publication No: NA

(61) Patent of Addition to Application Number :NA
 Filing Date :NA

(62) Divisional to Application Number :NA
 Filing Date :NA

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(57) Abstract :
 The present invention relates to a network intrusion detection system for IoT devices based on artificial intelligence (AI) techniques. The system comprises an AI-based engine that can detect and analyze network traffic in real-time, and a database for storing information related to network traffic patterns and device behavior. The AI-based engine uses machine learning algorithms to identify anomalous behavior and potential security threats, and can integrate with different IoT protocols such as Zigbee, Z-wave, and MQTT. The system provides real-time threat intelligence to security personnel and generates reports and logs of detected threats for further analysis and investigation. The network intrusion detection system is adaptable and customizable for different IoT applications and use cases, and can be integrated with existing security systems such as firewalls, anti-virus software, and intrusion detection and prevention systems.

No. of Pages : 19 No. of Claims : 10

(54) Title of the invention : Fractional-Order Polar Harmonic Transforms with Funk Singular Value Decomposition for Secure Image Watermarking Technique

(51) International classification :G06T0001000000, A01M0001100000, G06F0030000000, H04N0019102000, H04N0019154000

(86) International Application No :PCT// / Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA Filing Date :NA

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(57) Abstract :

[25] Traditional digital watermarks struggle to maintain a good balance between durability and invisibility. To address this issue, we offer an adaptive picture watermarking technique that combines singular value decomposition (SVD) and the Wang-Landau (WL) sampling method. When using this technique, the principal component is first chosen as the embedded location, and then derived using SVD from the third-level approximation sub-band acquired via the three-level wavelet transform. The scaling factor then permanently incorporates the data into the host image. Using a specified objective evaluation function, the Wang-Landau sampling technique acts as a global optimization algorithm to determine the optimal embedding coefficient. To avoid the common pitfall of many classic optimization algorithms—falling into local optimization—the embedding intensity is adaptively modified using the accumulated knowledge from the past. Several image-processing attacks are conducted, and the experimental findings are detailed to confirm the validity of the proposed strategy. This method has been shown to achieve a trade-off between robustness and invisibility when compared to other comparable watermarking techniques based on both qualitative and quantitative evaluation factors including peak signal-to-noise ratio (PSNR) and normalised cross-correlation (NC).

No. of Pages : 11 No. of Claims : 4

(54) Title of the invention : ADVANCED EMBEDDED TECHNOLOGY AND MACHINE LEARNING BASED MEDICAL WASTE SEGREGATION SYSTEM

<p>(51) International classification :B09B0003000000, A61L0011000000, G06Q0050260000, C05D0009000000, B65F0005000000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)A. RANGAMMA Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY, FACING MAIN ROAD, SHERIGUDA, IBRAHIMPATAN, TELANGANA, INDIA 501 510. -----</p> <p>2)C. SRAVANI 3)VASPARI KALYANI 4)ANUSHA MERUGU 5)GUBBALA CHANAKYA 6)PUSARLA SAMYUKTHA 7)RAMARAO GOSE 8)V. RAVI KUMAR Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)A. RANGAMMA Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY, FACING MAIN ROAD, SHERIGUDA, IBRAHIMPATAN, TELANGANA, INDIA 501 510. -----</p> <p>2)C. SRAVANI Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, GOKARAJU RANGARAJU INSTITUTE OF ENGINEERING & TECHNOLOGY, VILLA NO. 20, SKK ENCLAVE, BESIDE BHARATH PETROL BUNK, NIZAMPET ROAD, BACHUPALLY, HYDERABAD, TELANGANA, INDIA 500 090. -----</p> <p>3)VASPARI KALYANI Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF INTERNET OF THINGS, SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY, FACING MAIN ROAD, SHERIGUDA, IBRAHIMPATAN, TELANGANA, INDIA 501 510. -----</p> <p>4)ANUSHA MERUGU Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, ANURAG ENGINEERING COLLEGE, ANANTAGIRI, SURYAPET (DISTRICT), HYDERABAD, TELANGANA, INDIA 508 206. -----</p> <p>5)GUBBALA CHANAKYA Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF INFORMATION TECHNOLOGY, VIGNAN INSTITUTE OF TECHNOLOGY AND SCIENCE, DESHMUKHI(V), POCHAMPALLY(M), YADADRI- BHUVANAGIRI DISTRICT, HYDERABAD, TELANGANA, INDIA 508 284. -----</p> <p>6)PUSARLA SAMYUKTHA Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, VASAVI COLLEGE OF ENGINEERING, 9-5-81, IBRAHIMBAGH, HYDERABAD, TELANGANA, INDIA 500 031. -----</p> <p>7)RAMARAO GOSE Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, CHRISTU JYOTHI INSTITUTE OF TECHNOLOGY AND SCIENCE, COLOMBO NAGAR, YESHWANTHAPUR (VILLAGE), JANGAON, ANDAGOLI, JANGAON (DISTRICT), TELANGANA, INDIA 506 167. -----</p> <p>8)V. RAVI KUMAR Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, ACE ENGINEERING COLLEGE, ANKUSHAPUR, GHATKESAR MANDAL, MEDCHAL DISTRICT, TELANGANA, INDIA 501 301. -----</p>
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(57) Abstract :

Abstract Garbage collection might be a huge source of concern in today's culture. The method utilized to eliminate a large amount of produced garbage has an environmental impact. Unloading garbage in the open at dump sites may be a widespread practise. This strategy has an impact on both human health and the health of plants and animals. The hazardous waste disposal process pollutes both surface and groundwater. It is capable of producing disease vectors that spread dangerous illnesses. In India, the diversity of medical waste is becoming a worry. Unintentionally deposited waste creates a mess that is difficult to clean up on the fringes of cities and other urban regions. The manual labor required under the current system may lead the individual in question to be constantly unwell. The laudable aims of the proposed framework include promoting an automated system to save many people's lives and build a cleaner, greener earth. To overcome such issues, an automatic waste segregator is employed in the emergency department and healthcare institution. Because we utilize sensors to recognize and segregate different forms of waste. This information can also be sent to the head or the person in control through message utilizing a cloud-based regulator.

No. of Pages : 16 No. of Claims : 6

(54) Title of the invention : SYSTEM AND METHOD FOR ENABLING INTERNET OF THINGS-BASED VISCOSITY ALERT SYSTEM

<p>(51) International classification :C09D0007430000, C02F0001000000, A61K0008730000, A61B0018040000, B01J0019180000</p> <p>(86) International Application No Filing Date :PCT// / :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number Filing Date :NA :NA</p> <p>(62) Divisional to Application Number Filing Date :NA :NA</p>	<p>(71)Name of Applicant : 1)V.N.RamaDevi Address of Applicant :Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana, India, ----- Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)V.N.RamaDevi Address of Applicant :Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana, India, ----- 2)C. R. Venkateswara Rao Address of Applicant :Professor, Dept. of Humanities and Sciences Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana-500090 Hyderabad ----- 3)Saroja rani bhupatiraju Address of Applicant :Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana, India, 500090 Hyderabad ----- 4)Y.Rama Krishna Prasad Address of Applicant :Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana, India, 500090 Hyderabad ----- 5)Dr.Y.Vijayalata Address of Applicant :Professor, Department of Computer Science and Engineering, KG Reddy College of Engineering and Technology, Chilkur Village, Moinabad Mandal, Hyderabad, Telangana 501504 Hyderabad ----- 6)Dr. Y. Sri Lalitha Address of Applicant :Professor, Department of Information Technology, Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana-500090 Hyderabad ----- 7)P Gopala Krishna Address of Applicant :Associate Professor, Department of Information Technology, Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana-500090 Hyderabad ----- 8)Dr P.Varaprasada rao Address of Applicant :Professor, Department of Computer Science and Engineering, Gokaraju Rangaraju Institute of Engineering and Technology, Bachupally, Hyderabad, Telangana-500090 Hyderabad ----- 9)Dr. N.V.Ganapathi Raju Address of Applicant :Professor and HOD, Department of Information Technology Gokaraju Rangaraju Institute of Engineering and Technology Bachupally, Hyderabad, Telangana-500090 Hyderabad -----</p>
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(57) Abstract :
The present invention provides a viscosity alerting system based on Internet of things system. Which will solve the problem of uncontrolled stirring of sugar syrup which are based on viscosity. System comprises of one or more sensors within stirrer. System controls stirring based on obtaining and determining the change in range viscosity of chemical solution, based on matching of difference in determined range of viscosities system will control stirring at desired viscosity.

No. of Pages : 22 No. of Claims : 10

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

The Patent Office Journal No. 01/2023 Dated 06/01/2023

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/12/2022

(21) Application No.202241073450 A
(43) Publication Date : 06/01/2023

(54) Title of the invention : IMPLEMENTATION OF MACHINE LEARNING TECHNIQUES FOR ATTACK AND ANOMALY DETECTION IN INTERNET OF THINGS (IOT) SENSORS AND SITES

(51) International classification : G06N2000000, H04L00912000, H04L006712000,
G06F01167000, H04L01228000
(86) International Application No : PCT/
Filing Date : 01/01/2020
(87) International Publication No : NA
(61) Patent of Addition to : NA
Application Number : NA
Filing Date : NA
(62) Divisional to Application : NA
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Filing Date : NA

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(57) Abstract:
Implementation of Machine Learning Techniques for Attack and Anomaly Detection in Internet of Things (IoT) Sensors and sites in the proposed invention. The proposed invention includes techniques for detection of attacks in websites. The invention also identified the anomalies in the detection integrated with Internet of Things (IoT) Sensors.

No. of Pages : 13 No. of Claims : 6



THE GAZETTEE OF INDIA – EXTRAORDINARY [PART II—Sec 3(ii)]

FORM 2
THE PATENT ACT 1970
(39 of 1970)
&
The Patents Rules, 2003
PROVISIONAL/COMPLETE SPECIFICATION
(See Section 10 and Rule 13)

COMPLETE

DESIGN STUDY OF HYDRAULIC FIXTURE FOR CYLINDER HEAD
MACHINING.

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The following specification particularly describes the invention
and the manner in which it is to be performed

19-Dec-2022/123268/202241073496/Form 2(Title Page)

PATENT OFFICE CHENNAI 21/12/2022 10:37



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Department of Industrial Policy & Promotion,
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Government of India

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Application Details

APPLICATION NUMBER	202241073496
APPLICATION TYPE	ORDINARY APPLICATION
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TITLE OF INVENTION	DESIGN STUDY OF HYDRAULIC FIXTURE FOR CYLINDER HEAD MACHINING
FIELD OF INVENTION	MECHANICAL ENGINEERING
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REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	30/12/2022

Application Status