



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



Patent Search

Invention Title	A MACHINE LEARNING APPROACH FOR IOT DEVICE IDENTIFICATION BASED ON NETWORK TRAFFIC ANALYSIS AND ME
Publication Number	29/2022
Publication Date	22/07/2022
Publication Type	INA
Application Number	202241035060
Application Filing Date	18/06/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06N0020000000, H04L0029080000, H04L0029060000, H04L0012260000, H04W0004700000

Inventor

Name	Address
Dr.V.Sitharamulu	Associate Professor, Department of Computer Science and Engineering, Institute of Aeronautical Engineering (IARE), Dundigal Hyderabad, Telangana, India. Pin Code:500043
Dr.P.Lalitha Kumari	Associate Professor, Department of Computer Science and Engineering, Malla Reddy Institute of Technology, Secunderabad, Telangana, India. Pin Code:500100
Ms.Neelam Joshi	Assistant Professor, Department of Computer Science, Institute of Technology and Management, Gwalior, Madhya Pradesh, In Pin Code:474011
Mr.Ravi Ray Chaudhari	Assistant Professor, Department of Computer Science and Application, ITM University, Gwalior, Madhya Pradesh, India. Pin Code:474001
Mr.Sunidhi Shrivastava	Assistant Professor, Department of CSA, ITM University, Gwalior, Madhya Pradesh, India. Pin Code:474001
Mrs.B.Alekhya	Assistant Professor, Department of ECE, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, In Pin Code: 500090
Mrs.Manasa Yatagiri	Assistant Professor, Department of ECE, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, In Pin Code: 500090
Mr.Namit Khanduja	Assistant Professor, Department of Computer Science and Engineering, Faculty of Engineering & Technology, Gurukul Kangri (Deemed to be University), Haridwar, Uttarakhand, India. Pin Code:249404
Mrs.Earli.Manemma	Assistant Professor, Department of Electronics and Communication Engineering, Nadimpalli Satyanarayana Raju Institute of Technology (A) (NSRIT), Sontyam, Pendurti-Anandapuram Highway, Visakhapatnam, Andhra Pradesh, India. Pin Code:531173
Dr.S.Hasan Hussain	Associate Professor, Department of Computer Science and Engineering, Sri Venkateswara College of Engineering and Technol (Autonomous), Chittoor, Andhra Pradesh, India. Pin Code:517127

Applicant

Name	Address
Dr.V.Sitharamulu	Associate Professor, Department of Computer Science and Engineering, Institute of Aeronautical Engineering (IARE), Dundigal Hyderabad, Telangana, India. Pin Code:500043
Dr.P.Lalitha Kumari	Associate Professor, Department of Computer Science and Engineering, Malla Reddy Institute of Technology, Secunderabad, Telangana, India. Pin Code:500100
Ms.Neelam Joshi	Assistant Professor, Department of Computer Science, Institute of Technology and Management, Gwalior, Madhya Pradesh, Ir Pin Code:474011
Mr.Ravi Ray Chaudhari	Assistant Professor, Department of Computer Science and Application, ITM University, Gwalior, Madhya Pradesh, India. Pin Code:474001
Mr.Sunidhi Shrivastava	Assistant Professor, Department of CSA, ITM University, Gwalior, Madhya Pradesh, India. Pin Code:474001
Mrs.B.Alekhya	Assistant Professor, Department of ECE, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, I Pin Code: 500090
Mrs.Manasa Yatagiri	Assistant Professor, Department of ECE, VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad, Telangana, I Pin Code: 500090
Mr.Namit Khanduja	Assistant Professor, Department of Computer Science and Engineering, Faculty of Engineering & Technology, Gurukul Kangri (Deemed to be University), Haridwar, Uttarakhand, India. Pin Code:249404
Mrs.Earli.Manemma	Assistant Professor, Department of Electronics and Communication Engineering, Nadimpalli Satyanarayana Raju Institute of Technology (A) (NSRIT), Sontyam, Pendurti-Anandapuram Highway, Visakhapatnam, Andhra Pradesh, India. Pin Code:531173
Dr.S.Hasan Hussain	Associate Professor, Department of Computer Science and Engineering, Sri Venkateswara College of Engineering and Technol (Autonomous), Chittoor, Andhra Pradesh, India. Pin Code:517127

Abstract:

The present invention discloses a machine learning approach for IoT device identification based on network traffic analysis and method thereof. The limited to, a memory which stores instructions; one or more processors attached to the memory wherein the one or more processors, when executed, are configured to have: a processing unit configured for receiving network traffic generated by an anonymous IoT device. Further, the process a machine learning interface for extracting IoT device network behavior from the generated network traffic. Furthermore, an output means for determining anonymous IoT device from a list of a plurality of IoT devices by applying a selected machine learning based classifier module from a set of machine modules to analyze the device network behaviour. Accompanied Drawing [FIG. 1]

Complete Specification

Description:[001] The present invention relates to the field of the systems and methods for encryption, identification and classification of IoT based environment. The invention more particularly relates to a machine learning approach for IoT device identification based on network traffic analysis

BACKGROUND OF THE INVENTION

[002] The following description provides the information that may be useful in understanding the present invention. It is not an admission that any provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[003] Further, the approaches described in this section are approaches that could be pursued, but not necessarily approaches that have been previously pursued. Therefore, unless otherwise indicated, it should not be assumed that any of the approaches described in this section qualify as prior art or inclusion in this section.

[004] IoT has been experiencing rapid growth in last decade and is further expected to continue to proliferate, day by day becoming an integral part of communication. Among the various challenges that IoT poses to organizations are security and legitimate data transfer issues stemming from the large number of IoT devices and the ever increasing number of IoT-enabled organizational resources. In some cases, due to the diversified nature and the inherent mobility of these IoT devices in the communications network, organization can find it difficult to maintain an accurate record of the various connected IoT devices given time. It is need for an hour for tracking IoT devices connected to a communication network if anonymous IoT devices that are connected to the network can be accurately identified.

[005] Accordingly, on the basis of aforesaid facts, there remains a need in the prior art to provide a machine learning approach for IoT device identification.

[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>)

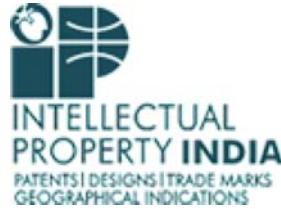
Contact Us (<http://ipindia.gov.in/contact-us.htm>) Help (<http://ipindia.gov.in/help.htm>)

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



Office of the Controller General of Patents, Designs & Trade Marks
Department of Industrial Policy & Promotion,
Ministry of Commerce & Industry,
Government of India

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



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

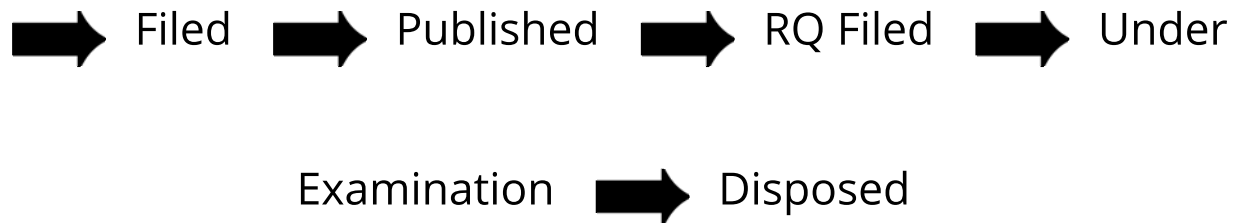
Application Details	
APPLICATION NUMBER	202241035060
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	18/06/2022
APPLICANT NAME	1 . Dr.V.Sitharamulu 2 . Dr.P.Lalitha Kumari 3 . Ms.Neelam Joshi 4 . Mr.Ravi Ray Chaudhari 5 . Mr.Sunidhi Shrivastava 6 . Mrs.B.Alekhyia 7 . Mrs.Manasa Yatagiri 8 . Mr.Namit Khanduja 9 . Mrs.Earli.Manemma 10 . Dr.S.Hasan Hussain
TITLE OF INVENTION	A MACHINE LEARNING APPROACH FOR IOT DEVICE IDENTIFICATION BASED ON NETWORK TRAFFIC ANALYSIS AND METHOD THEREOF
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	tumula.githam@gmail.com
ADDITIONAL-EMAIL (As Per Record)	tumula.githam@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	22/07/2022

Application Status

APPLICATION STATUS

Awaiting Request for Examination

[View Documents](#)



In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in