(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(51) International classification

(86) International Application

(87) International Publication

(62) Divisional to Application

(61) Patent of Addition to

Filing Date

**Application Number** 

Filing Date

Filing Date

Number

(22) Date of filing of Application :15/06/2023

(21) Application No.202341040746 A

(43) Publication Date: 30/06/2023

# (54) Title of the invention : A SYSTEM FOR PROVIDING SECURITY USING A PLURALITY OF FACTORS FOR IOT GADGETS

:B41M 031400, H04L 090800, H04L 452400,

H04L 675610, H04W 841800

:01/01/1900

: NA

·NA

:NA

:NA

·NA

#### (71)Name of Applicant:

#### 1)Mr.Hemant Sudarshan

Address of Applicant :UG Scholar, Department of Computer Science and Technology, School of Engineering, Dayananda Sagar University, Innovation Campus, Kudlu gate, Hosur Road, Bengaluru, Karnataka 560068, India -------

2)Mr.M.Chithambarathanu

3)Mr.V.Jagan Raja

4)Mrs. D.Saisanthiya

5)Dr. M.Venkatesh

6)Mr.K.Sathish

7)Dr. J K Periasamy Name of Applicant : NA

Name of Applicant : NA Address of Applicant : NA

(72)Name of Inventor:

#### 1)Mr.Hemant Sudarshan

Address of Applicant :UG Scholar, Department of Computer Science and Technology, School of Engineering, Dayananda Sagar University, Innovation Campus, Kudlu gate, Hosur Road, Bengaluru, Karnataka 560068, India --------

#### 2)Mr.M.Chithambarathanu

Address of Applicant :Assistant Professor, Department of Computer Science and Technology, School of Engineering, Dayananda Sagar University, Innovation Campus, Kudlu gate, Hosur Road, Bengaluru, Karnataka 560068, India ------

### 3)Mr.V.Jagan Raja

Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Avadi, Chennai 600062 ------

## 4)Mrs. D.Saisanthiya

Address of Applicant: Assistant Professor, Department of Networking and Communications, School of Computing, SRM Institute of Science and Technology-Kattankulathur, Chennai, India ------

# 5)Dr. M.Venkatesh

Address of Applicant :Assistant Professor, Department of EEE, GMR Institute of Technology, Rajam, Vizianagaram District, Andhra Pradesh -532127 -----

#### 6)Mr.K.Sathish

Address of Applicant : Associate Professor, Department of Computer Science and Engineering, Sri Sai Ram Engineering College, Chennai 600044, Tamil Nadu, India ------

# (57) Abstract:

The present invention discloses a system for providing Security using a plurality of factors for IoT gadgets and method thereof. The continuous expansion of the Internet of Things (IoT) necessitates improved security mechanisms, particularly secure communication between devices. This study explores a method for establishing secure communication between IoT devices, incorporating provisioning of devices, inviting the second device by the first, authentication of devices and communication line, and prevention of unestablished devices from communication. The method's effectiveness was analyzed by implementing it on a network of IoT devices and conducting various security tests. Results demonstrated that the method considerably bolstered the communication security of IoT devices. Accompanied Drawing [FIGS. 1-2]

No. of Pages: 17 No. of Claims: 5