

(54) Title of the invention : IoT, AI Based Implementation of smart Surveillance System with Facial Recognition and Image-processing approach

<p>(51) International classification :H04L0012580000, G06K0009000000, G08B0013196000, H04L0029080000, H04N0007180000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</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 :  <b>1)Mr. B. Sathiyaprasad</b>  Address of Applicant :Research Scholar Annamalai University Annamalai Nagar Tamilnadu, India. Pin: 608 002. State : Tamilnadu Country : India -----  <b>2)Dr.RAJARAM JATOTHU</b>  <b>3)Dr.M.Dhasaratham</b>  <b>4)Mr. Varun Kumar Kakar</b>  <b>5)Mrs. Madhuri Gurale</b>  <b>6)Dr. Ajay Arya</b>  <b>7)Aarti S. Jadhav Patil</b>  <b>8)Mr. Y. M. Mahaboobjohn</b>  <b>9)Mr. Navnath D. Kale</b>  <b>10)Dr. Gulshan Kumar</b>  <b>11)Dr. Arun Kumar Pallathadka</b>  <b>12)Dr. Harikumar Pallathadka</b>  Name of Applicant : NA  Address of Applicant : NA  (72)Name of Inventor :  <b>1)Mr. B. Sathiyaprasad</b>  Address of Applicant :Research Scholar Annamalai University Annamalai Nagar Tamilnadu, India. Pin: 608 002. State : Tamilnadu Country : India -----  <b>2)Dr.RAJARAM JATOTHU</b>  Address of Applicant :PROFESSOR TEEGALA KRISHNA REDDY ENGINEERING COLLEGE-R9, MEERPET, SAROOR NAGAR, RANGAREDDY, HYDERABAD Pin:500097 State: TELANGANA Country: INDIA -----  <b>3)Dr.M.Dhasaratham</b>  Address of Applicant :PROFESSOR TEEGALA KRISHNA REDDY ENGINEERING COLLEGE PIN:500097 State: TELANGANA Country: INDIA -----  <b>4)Mr. Varun Kumar Kakar</b>  Address of Applicant :Assistant Professor Department of Electronics &amp; Communication Engineering, B. T. Kumaon Institute of Technology, Dwarahat Pin: 263653 State: Uttarakhand Country: India -----  <b>5)Mrs. Madhuri Gurale</b>  Address of Applicant :Assistant professor College Name with address: D. Y. Patil College of Engineering, Akurdi, Pune Pin:411044 State: Maharashtra Country: India -----  <b>6)Dr. Ajay Arya</b>  Address of Applicant :Assit. Prof. SITA RAM ARYA MEMORIAL COLLEGE OF EDUCATION, BHERIAN, HISAR Pin: 125007 State: HARYANA Country: INDIA -----  <b>7)Aarti S. Jadhav Patil</b>  Address of Applicant :Assistant Professor D.Y. Patil College of Engineering, Akurdi, Pune Pin:411044 State: Maharashtra Country: India -----  <b>8)Mr. Y. M. Mahaboobjohn</b>  Address of Applicant :Assistant Professor, Mahendra College Of Engineering, Minnampalli, Salem Pin: 636106 State: Tamilnadu Country: India -----  <b>9)Mr. Navnath D. Kale</b>  Address of Applicant :Assistant Professor D.Y. Patil College of Engineering, Akurdi, Pune Pin:411044 State: Maharashtra Country: India -----  <b>10)Dr. Gulshan Kumar</b>  Address of Applicant :Associate Professor Shaheed Bhagat Singh State University, Ferozepur (Punjab) Pin: 152004 State: Punjab Country: India -----  <b>11)Dr. Arun Kumar Pallathadka</b>  Address of Applicant :Adjunct Director, Center for Polar Studies, Manipur International University, Ghari, Imphal, Imphal West. Pin: 795140 State: Manipur Country: India -----  <b>12)Dr. Harikumar Pallathadka</b>  Address of Applicant :Director, Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140 State: Manipur Country: India -----</p>
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(57) Abstract :  
IoT, AI Based Implementation of smart Surveillance System with Facial Recognition and Image- processing approach Abstract: Self-aware automated systems have excelled in recent years at tasks such as private security and surveillance. By combining facial recognition technology and the Internet of Things, the authors of this study hope to make public surveillance safer. Additionally, a Raspberry Pi 3 with the pi camera, the LBPH algorithm, and SMTP are required. Along with open source technology, the LBPH algorithm and the LBPH algorithm are critical. The applications are designed for use in a variety of environments, including homes, offices, and schools. The proposed system is capable of detecting and recognising faces in real time. Individuals can access the database if their image matches the database's LBPH algorithm. The image is inspected and compared to the database using this algorithm. If the photograph you took does not correspond to a database entry, you have a second option: send it to the user's email address. You can accomplish this by utilising the SMTP protocol. Additionally, an SMS is sent to the registered number to ensure that the home owner receives the notification. Following that, the system waits a predetermined amount of time for the user to respond. IMAP is used to receive messages from the Raspberry Pi. The discovered message dictates whether or not access is granted or denied.

No. of Pages : 13 No. of Claims : 7