

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :14/09/2022

(21) Application No.202241052551 A

(43) Publication Date : 23/09/2022

(54) Title of the invention : Artificial Intelligence and IoT based smart health care system to prevent and detect all types of Lung disease and level of infection and diagnose at early stage using data mining, cloud Computing and Deep learning algorithms

<p>(51) International classification :G16H0050200000, G06N0020000000, G06Q0050200000, G06N0005040000, G06N0005020000</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 : 1)Dr.S.JANANI,M.E,Ph.D. Address of Applicant :ASSOCIATE PROFESSOR DEPARTMENT OF ECE PERIYAR MANIAMMAI INSTITUTE OF SCIENCE & TECHNOLOGY VALLAM, THANJAVUR DISTRICT, TAMILNADU, INDIA ----- 2)Dr.B.Karthiga 3)Mohammad Shahbaz Khan 4)GARIMA SHARMA 5)Vikas Shende 6)Dr. S. BeskiPrabaharan 7)Dr. Tushar Choudhary 8)Sandeep Kumar Hegde 9)Rajalaxmi Hegde 10)Surendra Singh Chauhan Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.S.JANANI,M.E,Ph.D. Address of Applicant :ASSOCIATE PROFESSOR DEPARTMENT OF ECE PERIYAR MANIAMMAI INSTITUTE OF SCIENCE & TECHNOLOGY VALLAM, THANJAVUR DISTRICT, TAMILNADU, INDIA ----- 2)Dr.B.Karthiga Address of Applicant :Associate Professor Department of ECE Dhanalakshmi Srinivasan Engineering College(Autonomous), Perambalur /Anna University Address:52 MVK Nagar II Street,Perambalur ----- 3)Mohammad Shahbaz Khan Address of Applicant :Sr R & D DevOps Engineer Department of Research Children's National Hospital, Washington DC, USA ----- 4)GARIMA SHARMA Address of Applicant :ASSISTANT PROFESSOR Department of COMPUTER SCIENCE ENGINEERING Vivekananda Global University ec 36 , NRI Road ,Jagatpura, Jaipur ----- 5)Vikas Shende Address of Applicant :Principal Scientist Department of Science and Technology M.P. Council of Science and Technology Bhopal M. P. Council of Science and Technology, Vigyan Bhawan, Nehru Nagar, Bhopal 462003 ----- 6)Dr. S. BeskiPrabaharan Address of Applicant :Professor Department of CSE Galgotias University, Greater Noida GautumBuddh Nagar, Greater Noida ----- 7)Dr. Tushar Choudhary Address of Applicant :Assistant Professor Department of Mechanical Engineering PDPM Indian Institute of Information Technology Design and Manufacturing Jabalpur IIITDM CAMPUS, Dumna Airport Road ----- 8)Sandeep Kumar Hegde Address of Applicant :Assistant Professor Department of CSE NMAM Institute of Technology,-Affiliated to Nitte (Deemed to beUniversity) : Asst professor Department of CSE NMAM Institute of Technology,-Affiliated toNitte (Deemed to be University) Nitte, 574110, Karkala Taluk, Udupi District, India,Karnataka ---- 9)Rajalaxmi Hegde Address of Applicant :Assistant Professor Department of CSE NMAM Institute of Technology,-Affiliated to Nitte (Deemed to beUniversity) Asst professor Department of CSE NMAM Institute of Technology,-Affiliated toNitte (Deemed to be University) Nitte, 574110, Karkala Taluk, Udupi District, India,Karnataka ----- 10)Surendra Singh Chauhan Address of Applicant :Assistant Professor Department of Computer Engineering and Application GLA University, Mathura, Uttar Pradesh India -----</p>
--	--

(57) Abstract :
Artificial Intelligence and IoT based smart health care system to prevent and detect all types of Lung disease and level of infection and diagnose at early stage using data mining, cloud Computing and Deep learning algorithms
Abstract: Data from IoT devices can be turned into a treasure trove of knowledge using an effective process known as machine learning (ML). These hybrid solutions are effective in classrooms, boardrooms, hospitals, and fortifications, where making smarter judgments is always a top priority. This is due to the fact that each of these disciplines has its own set of obstacles and benefits. Machine learning can be used in the Internet of Things to discover hidden patterns in massive volumes of data. This enables more accurate prediction and recommendation systems to be developed. The Internet of Things (IoT) and machine learning have been quickly adopted by the healthcare industry. As a result, automated solutions that collect medical data, anticipate disease diagnoses, and, most critically, monitor patients in real time have been developed. When applied to diverse datasets, various machine learning algorithms provide varied and frequently unexpected outcomes. Because of the uncertainty of what will happen, this may have an impact on the entire system. The degree to which actual results deviate from expectations has a significant impact on clinical decision making. As a result, it's critical to understand the various machine learning methodologies utilised by the healthcare industry to manage IoT data. This article provides an overview of well-known machine learning (ML) classification and prediction algorithms, as well as examples of how these algorithms have been applied in the healthcare business. This research seeks to provide a general overview of the numerous existing ML algorithms and how they may be used to IoT medical data. We conducted extensive research and discovered that different machine learning prediction approaches each have their own set of issues. Different methodologies must be employed to accurately anticipate vital health data depending on the type of Internet of Things dataset used. The essay also discusses how machine learning and the Internet of Things (IoT) might be used to predict future advancements in healthcare service delivery. Healthcare is one area of our everyday life that has altered dramatically as a result of technological and artificial intelligence advancements over the last few decades. There are numerous subfields within the discipline of e-health. Wearables, smart inhalers, handheld electronic spirometers, digital stethoscopes, and clinical decision support systems are examples of technologies in this category. E-health has been demonstrated to improve patient satisfaction with their care, increase medication adherence, and assist clinicians in detecting the progression of chronic pulmonary disease early. These advantages have been demonstrated numerous times. This study will examine not only how essential e-health procedures and tools are in respiratory medicine today, but also how vital they may become in the future. In this approach, we hope to provide our readers with evidence that is both reliable and current. This allows them to learn more about the topic at hand while also taking advantage of the most recent technological advances. According to the literature, three important interactions are required for technology tools in respiratory medicine to attain their full potential: interactions between doctors, clinicians and patients, and patients and health technologies. However, it would be preferable to develop a set of guidelines that everyone agrees on for conducting studies and reporting outcomes in this subject. These rules should also include potentially crucial issues such as privacy protection and rule compliance. This would be beneficial since it would make it easier to conduct research and exchange findings in this subject. This would be beneficial because it would ensure that the regulations are correctly obeyed.

No. of Pages : 13 No. of Claims : 9