

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311027473 A

(19) INDIA

(22) Date of filing of Application :13/04/2023

(43) Publication Date : 02/06/2023

(54) Title of the invention : AUTOMATIC SMART REAL TIME WEATHER PREDICTION SYSTEM USING IOT AND MACHINE LEARNING FOR SMART AGRICULTURE SYSTEM

<p>(51) International classification :G01W 010000, G01W 011000, G06N 200000, G06Q 500200, H02J 031400</p> <p>(86) International Application No :PCT//</p> <p>Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p><b>1)Asha Yadav</b> Address of Applicant :Principal, Department of Nursing, IIMT University, 'O'pocket, Ganga Nagar, mawana road Meerut, Uttar Pradesh, India -----</p> <p><b>2)Ms. Santhoshini Sahu</b> <b>3)Dabbeeru Priyanka</b> <b>4)Justin J</b> <b>5)Ms. A. P UVAREKA</b> <b>6)Mrs. S. MALATHI</b> <b>7)A. Vijayaprabhu</b> <b>8)Dr. Sanjay Dubey</b> <b>9)Dr. Prabhakara Rao Kapula</b> <b>10)P. Sravani</b> <b>11)RAVI PAL</b></p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p><b>1)Asha Yadav</b> Address of Applicant :Principal, Department of Nursing, IIMT University, 'O'pocket, Ganga Nagar, mawana road Meerut, Uttar Pradesh, India -----</p> <p><b>2)Ms. Santhoshini Sahu</b> Address of Applicant :Assistant Professor, Department of Computer Science GMRT, Rajam, Vizianagaram , Andhra Pradesh India. 532127 -----</p> <p><b>3)Dabbeeru Priyanka</b> Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Aditya Institute of Technology and Management College, K. Kotturu, Tekkali, Srikakulam, Andhra Pradesh, India -----</p> <p><b>4)Justin J</b> Address of Applicant :Associate Professor Department of Computer Science, St. Joseph University, Virgin Town, Ikishe Model Village, Chumoukedima, Nagaland -797115, -----</p> <p><b>5)Ms. A. P UVAREKA</b> Address of Applicant :Assistant Professor, PG &amp; Research Department of Computer Science and Applications, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam (PO) Tiruchengode (TK), Namakkal(DT), Pin - 637 205, Tamilnadu, India -----</p> <p><b>6)Mrs. S. MALATHI</b> Address of Applicant :Assistant Professor, PG &amp; Research Department of Computer Science and Applications, Vivekanandha College of Arts and Sciences for Women (Autonomous), Elayampalayam (PO) Tiruchengode (TK), Namakkal (DT), Pin - 637 205, Tamilnadu, India -----</p> <p><b>7)A. Vijayaprabhu</b> Address of Applicant :Associate Professor, Department of ECE, Siddharth Institute of Engineering and Technology Puttur, Chittoor, Andhrapradesh, India -----</p> <p><b>8)Dr. Sanjay Dubey</b> Address of Applicant :Professor, Department of ECE, B V Raju Institute of Technology, Narsapur, Telangana - 502313, India -----</p> <p><b>9)Dr. Prabhakara Rao Kapula</b> Address of Applicant :Professor, Department of ECE, B V Raju Institute of Technology, Narsapur, Telangana - 502313, India -----</p> <p><b>10)P. Sravani</b> Address of Applicant :Assistant Professor, Department of ECE, B V Raju Institute of Technology, Narsapur, Telangana - 502313, India -----</p> <p><b>11)RAVI PAL</b> Address of Applicant :Lecturer (IT), Department of Technical Education UP Govt., Mahamaya Polytechnic of Information Technology Hathras, Salempur, Hathras, Uttar Pradesh, India -----</p>
--	--

(57) Abstract :  
AUTOMATIC SMART REAL TIME WEATHER PREDICTION SYSTEM USING IOT AND MACHINE LEARNING FOR SMART AGRICULTURE SYSTEM Abstract: In the big data environment, we develop personalized information of college libraries based on big data from three aspects: the overall architecture of the system model, the functional model of the system, and the design of system interface modules according to the design principles and requirements of the personalized information service system of the university library Service system design. In terms of the functional design of the platform, the service platform is divided into four levels: accurate identification of user needs based on big data, personalized customized services based on artificial intelligence, academic research and discussion space based on integrated media, and fine-grained subject resource aggregation based on knowledge. On this basis, a centralized model of individualized services of university libraries including internal and external personnel, information resources, technology, services, processes, platforms, and environment has been constructed Artificial intelligence (AI) is one of the emerging trends and applications of computing in libraries. It involves programming computers to do things, which if done by humans, would be said to require intelligence. The ultimate promise of artificial intelligence in libraries is to develop computer systems or machines that think, behave, and in fact rival human intelligence, and this clearly has major implications on librarianship. The application of artificial intelligence in the library has become pervasive. They include expert systems for reference services, book reading and shelf-reading robots, virtual reality for immersive learning among others. Although the incorporation of artificial intelligence in libraries can be perceived to alienate librarians from their users, it will probably help libraries do more rather than taking over the jobs of librarians. It will enhance their services delivery. Artificial intelligence will greatly improve library operations and services and will upgrade and heighten the relevance of libraries in an ever-changing digital society The Internet of Things (IoT) and machine learning are two intelligent technologies that have recently gained prominence. There are numerous options for IoT hardware systems. The ESP8266 is an example of a chip of this variety. This work implements a technique for producing accurate real-time weather forecasts. This method can be utilized to predict the weather in residences, offices, farms, parks, and other areas. The procedure employs a light-dependent resistor and a digital thermo-hygrometer. Utilizing a NodeMCU and an ESP8266-01 module, the sensor data is transmitted to a cloud server managed by ThingSpeak. A dedicated HTML page where the data can be viewed in real time has also been developed. A logistic regression model is the most crucial element of machine learning. This model is trained using historical sensor values. In addition to receiving sensor measurements such as temperature, humidity, and light level, NodeMCU transmits them to a Jupyter notebook operating in a Python environment. The information collected by NodeMCU is then transmitted to a Python environment. The connected NodeMCU lead displays a projected value based on the real-time data used to validate the model.

No. of Pages : 9 No. of Claims : 7