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(54) Title of the invention : AI AND IOT BASED WATERBORNE DISEASE SURVEILLANCE FOR RAPID OUTBREAK DETECTION USING PIR SENSORS

(51) International classification	:G01N0033180000, H04W0004380000, G01N0015060000, C12Q0001100000, C12Q0001682500	(71)Name of Applicant : 1)V.S.B.COLLEGE OF ENGINEERING TECHNICAL CAMPUS Address of Applicant :Professor & Head of the Department,Department of Artificial Intelligence and Data Science, V.S.B. College of Engineering Technical Campus, Kinathukadavu, Coimbatore -642109. -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	
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(57) Abstract :

This methodology investigates the possibility of using modified PIR sensors in conjunction with AI and IOT for microbe detection in small heated water samples. Small, high—sensitivity PIR sensors (modified for potentially improved sensitivity) would be used alongside a microcontroller board, data acquisition system, and AI software. Water samples with varying microbe concentrations would be heated to a specific temperature. The sensor would continuously record data while the AI model is trained on prepossessed sensor data labeled with microbe concentration. The trained model would then analyze data from new samples with unknown microbe concentrations, aiming to detect and estimate microbe presence based on the sensor data. An IoT platform could be integrated for remote monitoring, data visualization, and real-time alerts based on the AI model's predictions. This approach explores the potential of sensor technology and AI applications in microbe detection, but challenges 'include sensor limitations, data complexity, and real-world applicability. This approach presents an exciting exploration at the intersection of sensor technology and AI applications in microbe detection. However, -it's crucial to acknowledge the challenges. The limitations of the modified PIR sensors themselves come into play, as they might not be sensitive enough to capture the subtle thermal changes caused by microbes. Additionally, extracting meaningful data from the sensor readings amidst background noise and temperature fluctuations could pose a significant challenge for the AI model. Finally, the real-world applicability of this approach in environments with diverse water compositions and microbe types remains uncertain. Despite these limitations, this methodology offers a valuable thought experiment, pushing the boundaries of what's possible in microbe detection.

No. of Pages : 7 No. of Claims : 4

(54) Title of the invention : AI AND CHATBOT BASED DIGITAL PLATFORM FOR LAND AND FOREST RIGHTS AWARENESS AND SUPPORT FOR ST COMMUN

(51) International classification :G06Q0050180000, G06Q0010100000, G06Q0010060000, G06F0021620000, G06Q0030020000

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(57) Abstract :

AI and Chatbot based Digital Platform for Land and Forest Rights Awareness and Support for ST Communities *Abstract: Scheduled Tribe (ST) communities often face challenges in understanding and asserting their land and forest rights. An AI-powered digital platform can bridge this gap by providing accessible and culturally relevant information. This platform would feature a multilingual Chatbot, allowing users to ask questions about land rights acts, grievance procedures, and entitlements in their native language. Easy-to-understand explainer videos, infographics, and downloadable booklets would further clarify complex legal concepts. Interactive modules like quizzes and simulations would make learning engaging. Beyond information, the platform would empower communities through a multilingual helpline with human experts to address specific situations. A safe online forum would foster peer support and knowledge sharing. A comprehensive legal aid directory would connect users with lawyers specializing in tribal land rights. Accessibility is key: the platform would function offline for areas with limited internet, and a voice interface would cater to users with low literacy or visual impairments Partnerships with NGOs and local organizations would ensure outreach and training sessions using the platform. Robust data security measures would protect user privacy, particularly regarding sensitive land ownership information; The platform would be available in multiple local languages, recognizing the diverse linguistic needs of ST communities. Finally, a long-term plan for maintenance, content updates, and staff training would ensure the platform's continued effectiveness in empowering ST communities to claim their rightful ownership of land and forest resources.

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(43) Publication Date : 18/11/2022

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED APPROACH TO ANALYSE THE PROS AND CONS OF MINI CHANNEL BASED SOLAR COLLECTORS FOR EFFECTIVE UTILIZATION OF SOLAR ENERGY

(51) International classification :H01L0027092000, C07K0016280000, G06N0003020000, H01L0023310000, C02F0001140000
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(61) Patent of Addition to Application Number :NA
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(57) Abstract :
Artificial Intelligence based approach to analyse the pros and cons of mini channel based solar collectors for effective utilization of solar energy is the proposed invention. The proposed invention focuses on analysing the positive and negative aspects of mini channel-based collector. Also, the proposed invention aims at increasing the utilization of solar energy and increasing the efficiency of solar based devices.

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(19) INDIA

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(43) Publication Date : 02/08/2024

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED WATER PURIFICATION SYSTEM TO SUPPLY DRINKING WATER WITH RIGHT NUTRIENTS

(51) International classification		:C02F0001000000, C02F0001280000, C02F0001440000, C02F0001500000, C02F0001320000	(71)Name of Applicant : 1)Dr. R. MURUGADOSS Address of Applicant :PROFESSOR DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE V.S.B. COLLEGE OF ENGINEERING TECHNICAL CAMPUS KINATHUKADAVU COIMBATORE - 642109 TAMILNADU COIMBATORE -----
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(61) Patent of Addition to Application Number	:NA		
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(62) Divisional to Application Number	:NA		
Filing Date	:NA		

(57) Abstract :

Artificial Intelligence based water purification system to supply drinking water with right nutrients is the proposed invention. The proposed invention focuses on designing a water filter that will filter of the water using the ceramic candles, one of the oldest methodologies to filter water. The ceramic candle is used such that the water is not cleaned too much, which is the major drawback of the existing water filters. The proposed water filter is designed to include the minerals, such that they can be added in required amount. This will help the water purifier users to stay away from the problems of mineral deficiency and stay healthy.

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(19) INDIA

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(54) Title of the invention : FARMER BOT FOR YIELD PREDICTION AND FERTILIZER RECOMMENDATIONS

<p>(51) International classification :G06N0020000000, H04L0051020000, G06N0003000000, G06N0005020000, G06N0005040000</p> <p>(86) International Application No :NA Filing Date :NA</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)S SOUNDHAR Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE V S B COLLEGE OF ENGINEERING TECHNICAL CAMPUS -----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)S Soundhar Address of Applicant :Assistant Professor AI&DS V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p> <p>2)M Abernakumari Address of Applicant :Assistant Professor,AI&DS V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p> <p>3)D Jeevitha Address of Applicant :Assistant Professor,AI&DS V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p> <p>4)D S Jaya Kumari Address of Applicant :Assistant Professor AI&DS V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p> <p>5)V MurugaLakshmi Address of Applicant :Assistant Professor AI&DS V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p> <p>6)F Theophilus Address of Applicant :Assistant Professor AI&DS V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p> <p>7)Dr R Murugadoss Address of Applicant :Professor ,AI&DS, V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p> <p>8)Dr P Venkadesh Address of Applicant :Professor ,AI&DS, V S B College of Engineering Technical Campus Coimbatore Coimbatore -----</p>
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(57) Abstract :

This study develops a chat room and a Chat-Bot to discuss the prevailing issues related to farming with peers and expertise and support farmers to make timely decision on farming. A standard set of questions was identified through discussions and surveys with farmers, expertise and other stakeholders. Intents, which the users might want to know, and examples, which the users use to explain a specific intent and entities that are different objects referring to an intent were identified from the questions. Artificial Intelligence Markup Language (AIML) was used to train a model, which predicts an intent based on the given example. The Chat-Bot was implemented in a cloud platform and therefore, the client end does not require more computational resources. Farmers loose their yield because they lack knowledge of new technologies and different parameters that help them increase their yield. Our proposed system performs machine learning analysis on all the valuable parameters required for increasing the farmers yield .We analyse the weather , season, rainfall ,and type of soil of a region and based on historic data train the system to suggest which crops to grow , and which mix crops grown together increase their yield We also answer all these farmers questions using auto-chat bot .This chat bot is NLP trained hence it learns on its own and improvises its answers .This system helps farmers in remote places where no connectivity is present to better understand the crop to be grown based on atmospheric conditions and also answer their basic questions on farming

No. of Pages : 9 No. of Claims : 5