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Patent Search

Invention Title	SMART INHALER WITH REAL-TIME INHALATION PATTERN ANALYSIS AND METHOD THEREOF		
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Inventor			
Name	Address	Country	
Dr. Kannagi Anbazhagan	Associate Professor, School Of Cs & It, Jain (Deemed-To-Be University), Bengaluru – 560069, Karnataka, India	India	
Prof. Seema Babusing Rathod	Assistant Professor, Computer Science and Engineering, Sipna College of Engineering and Technology, Amaravathi, Maharashtra – 411043, India	India	
Dr. Keyurkumar Patel	Assistant Professor (IT), School of IT, Artificial Intelligence and Cyber Security (SITAICS), Rashtriya Raksha University (An Institute of National Importance), Raksha Shakti Rd., Lavad, Dehgam, Gandhinagar, Gujarat-382305, India	India	
Dr. Sasikumar P	Associate Professor Sr. & Asst. Dean, Academic Research, Department of Embedded Technology, School of Electronics Engineering [SENSE],Vellore Institute of Technology, Vellore 632014, India	India	
Dr. Kavitha. R	Professor, School Of Cs & It, Jain (Deemed-To-Be University), Bengaluru – 560069, Karnataka, India	India	
Dr. Velmurugan Pavanan	Associate Professor, Department Of Mechanical Engineering, Gopalan College Of Engineering And Management, Visvesvaraya Technological University, Belagavi - 590018, Karnataka, India	India	
Dr. Yogita Manish Patil	Assistant professor, Department of Computer science and IT,S B.E.S. College of Science, Chatrapati Sambhajinagar (Aurangabad)-431001, Maharashtra 431003, India	India	
Dr. Revathi T	Assistant Professor, Department Of Analytics, Woxsen University, Hyderabad-502345, Telangana, India	India	
Dr. D. Preethi	Assistant Professor, School Of Cs & It, Jain (Deemed-To-Be University), Bengaluru – 560069, Karnataka, India	India	
M. Vanitha	Assistant Professor, Department of Artificial Intelligence and Data Science, Kongunadu College of Engineering and Technology, 6/214, Samathuvapuram, M. Mettupati, Namakkal (Dt)-637020, Tamil Nadu, India	India	
Dr. K. Krishnaveni	Associate Professor & Head, Department O Computer Science, Sri S. Rmasamy Naidu Memorial College, Sattur, Viruthunagar, Tamil Nadu 626203, India	India	
Mr. Karthikeyan M P	Assistant Professor, School Of Cs & It, Jain (Deemed-To-Be University), Bengaluru – 560069, Karnataka, India	India	
Dr. Gnanaprakasam Thangavel	Associate Professor, School Of Engineering & Technology, Jain (Deemed-To-Be University), Bengaluru– 560069, Karnataka, India	India	
Applicant			

Name	Address	Country
Dr. Kannagi Anbazhagan	Associate Professor, School Of Cs & It, Jain (Deemed-To-Be University), Bengaluru – 560069, Karnataka, India	India
Prof. Seema Babusing Rathod	Assistant Professor, Computer Science and Engineering, Sipna College of Engineering and Technology, Amaravathi, Maharashtra – 411043, India	India
Dr. Keyurkumar Patel	Assistant Professor (IT), School of IT, Artificial Intelligence and Cyber Security (SITAICS), Rashtriya Raksha University (An Institute of National Importance), Raksha Shakti Rd., Lavad, Dehgam, Gandhinagar, Gujarat-382305, India	India
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Dr. Yogita Manish Patil	Assistant professor, Department of Computer science and IT,S B.E.S. College of Science, Chatrapati Sambhajinagar (Aurangabad)-431001, Maharashtra 431003, India	India
Dr. Revathi T	Assistant Professor, Department Of Analytics, Woxsen University, Hyderabad-502345, Telangana, India	India
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Mr. Karthikeyan M P	Assistant Professor, School Of Cs & It, Jain (Deemed-To-Be University), Bengaluru – 560069, Karnataka, India	India
Dr. Gnanaprakasam Thangavel	Associate Professor, School Of Engineering & Technology, Jain (Deemed-To-Be University), Bengaluru– 560069, Karnataka, India	India

Abstract:

The present invention provides a smart inhaler that revolutionizes respiratory care by integrating sensors and a processing unit to analyze real-time inhalation pattern. The smart inhaler uses differential pressure sensors, flow sensors, and accelerometers, it captures data during usage, allowing the device to identify deviations from prescribed patterns. A user interface provides immediate feedback, encouraging proper technique. Wireless connectivity enables secure data transmission to healthcare platforms, fostering remote monitoring and personalized treatment plans. This transformative approach enhances patient adherence and facilitates data-driven decisions for healthcare providers. The smart inhaler's method involves capturing and processing inhalation data, delivering actionable insights to patients and professionals. This invention heralds a new era in respiratory healthcare, emphasizing improved adherence and personalized treatments for better patient outcomes.

Complete Specification**Description:Field of the Invention**

The present invention relates to the field of respiratory healthcare devices, specifically to smart inhalers equipped with real-time inhalation pattern analysis. The invention provides a novel method for monitoring and analyzing inhalation patterns, offering valuable insights into patient adherence, disease management, and personalized treatment plans.

Background

Respiratory diseases, such as asthma and chronic obstructive pulmonary disease (COPD), are significant global health concerns. Inhaler devices have long been the cornerstone of managing these conditions, providing patients with quick and targeted medication delivery. However, traditional inhalers lack the ability to capture and analyze the intricate details of a patient's inhalation patterns, impeding healthcare providers' ability to assess treatment adherence and efficacy accurately. Existing solutions predominantly rely on patient self-reporting, which is subjective and prone to inaccuracies. Some attempts have been made to incorporate basic inhaler usage tracking through mechanical counters or electronic modules. Still, these solutions fail to provide a detailed analysis of the inhalation process. Moreover, these devices often lack real-time feedback mechanisms, hindering their potential to positively influence patient behavior and adherence to prescribed inhalation techniques. The limitations of current inhaler technologies underscore the need for a more sophisticated and integrated solution. A smart inhaler that not only records inhalation events but also analyzes real-time data to offer immediate feedback to patients and actionable insights to healthcare providers would represent a significant advancement in respiratory care.

Summary of the Invention:
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Application Details

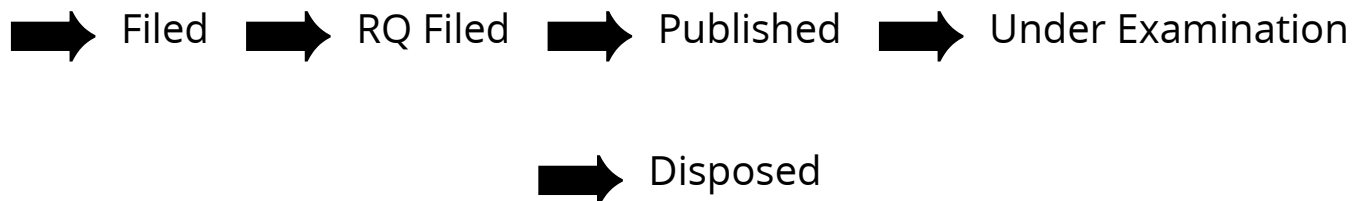
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APPLICANT NAME	1 . Dr. Kannagi Anbazhagan 2 . Prof. Seema Babusing Rathod 3 . Dr. Keyurkumar Patel 4 . Dr. Sasikumar P 5 . Dr. Kavitha. R 6 . Dr. Velmurugan Pavanan 7 . Dr. Yogita Manish Patil 8 . Dr. Revathi T 9 . Dr. D. Preethi 10 . M. Vanitha 11 . Dr. K. Krishnaveni 12 . Mr. Karthikeyan M P 13 . Dr. Gnanaprakasam Thangavel
TITLE OF INVENTION	SMART INHALER WITH REAL-TIME INHALATION PATTERN ANALYSIS AND METHOD THEREOF
FIELD OF INVENTION	COMPUTER SCIENCE
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Application Status

APPLICATION STATUS

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In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in



सत्यमेव जयते

The Patent Office, Government Of India

Patent Certificate

(Rule 74 of The Patents Rules)

3.Dr. Kevurkumar Patel 4.Dr. Sasikumar P

It is hereby certified that a patent has been granted to the patentee for an invention entitled **SMART INHALER WITH REAL-TIME INHALATION PATTERN ANALYSIS AND METHOD THEREOF** as disclosed in the above mentioned application for the term of 20 years from the 29th day of November 2023 in accordance with the provisions of the Patents Act,1970.

It is hereby certified that a patent has been granted to the patentee for an invention entitled **SMART INHALER WITH REAL-TIME INHALATION PATTERN ANALYSIS AND METHOD THEREOF** as disclosed in the above mentioned application for the term of 20 years from the 29th day of November 2023 in accordance with the



अनुदान की तारीख : 10/09/2024
Date of Grant :


इन्वेंट की पंजीकृत
पेटेंट नियंत्रक
Controller of Patents

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, नवम्बर 2025 के उन्नीसवें दिन को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained, will fall / has fallen due on 29th day of November 2025 and on the same day in every year thereafter.

*चूंकि पेटेंटी व आविष्कारकों की संख्या अधिक है, पेटेंटी व आविष्कारकों के नाम पृष्ठ संख्या 2 पर जारी हैं।

*Since the Number of Patentees / Inventors is more, the name of Patentees / Inventors are continued on Page No. 2



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पेटेंट प्रमाणपत्र के लिए अनुलग्नक/Annexure to Patent Certificate

पेटेंट सं. / Patent No.

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202341081087

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29/11/2023

पेटेंटी / Patentee (जारी/Continued)

5.Dr. Kavitha R 6.Dr. Velmudugan Pavanan 7.Dr. Yogita Manish
Patil 8.Dr. Revathi T 9.Dr. D. Preethi 10.M. Vanitha 11.Dr. K.
Krishnaveni 12.Mr. Karthikeyan M P 13.Dr. Gnanaprakasam
Thangavel