

पेटेंट कार्यालय  
शासकीय जर्नल

**OFFICIAL JOURNAL  
OF  
THE PATENT OFFICE**

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पेटेंट कार्यालय का एक प्रकाशन  
PUBLICATION OF THE PATENT OFFICE

(54) Title of the invention : MACHINE LEARNING BASED TECHNIQUE FOR RETRIEVAL OF SPECIALISED VOCABULARY LIST FROM AN ORIGINAL CORPUS OF DIGITAL SCIENCE RESOURCES FOR MIDDLE SCHOOL LEARNERS

(51) International classification :G06N002000000, G06N002020000, G09B0023060000, G06K0009620000, G09B0019220000

(86) International Application No :PCT//  
Filing Date :01/01/1900

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

(62) Divisional to Application Number :NA  
Filing Date :NA

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**5)Dr VANDANA VAISHNAV**  
**6)Dr SONIA GOSWAMI**  
**7)Dr SWARNITA SHARMA**  
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**9)Dr.NAMRATA DHANDA**  
**10)KAPIL KUMAR GUPTA**  
**11)RAJAT VERMA**  
**12)Dr. ATUL SRIVASTAVA**  
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(57) Abstract :  
 Machine Learning based technique for Retrieval of Specialised Vocabulary List from an Original Corpus of Digital Science Resources for Middle School Learners is the proposed invention. The invention focuses on utilizing the algorithms of machine learning for retrieval of specialized vocabulary list from an original corpus of digital science resources. The invention will utilize the middle school learners for study.

No. of Pages : 13 No. of Claims : 4

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :28/04/2023

(21) Application No.202341030539 A

(43) Publication Date : 26/05/2023

(54) Title of the invention : ENGLISH LEARNING ACQUISITION FROM AUDIO AND VISUAL PROCESSING IN COGNITIVE SKILLS

(51) International classification :A61B 051600, G09B 050600, G09B 070200, G09B 190000, G09B 190600  
(86) International Application No :PCT/  
Filing Date :01/01/1900  
(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

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4)Mrs. Nitin  
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8)Ms. M. Hamsalatha  
9)Dr. Chhaya Kishor Joshi  
10)Ms. Dhanya Menon S  
11)Dr. V. Kannan  
12)Mr. J. Logeshwaran  
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(57) Abstract :  
This paper explores the impact that audio and visual processing can have on cognitive skill development in the context of English language learning. Cognitive skill development is crucial for successful language learning, since it is not enough for a learner to simply memorize and repeat language content. Cognitive skills are those abilities which are necessary to use language successfully in real life settings. Research from cognitive psychology has repeatedly concluded that the visual and auditory pathways in the brain communicate differently and that stimulations of both senses can enhance learning and memory. The use of auditory and visual processing and instruction has proven beneficial in the classroom environment and can improve the learning experience for students. Audio and visual processing can be used to reinforce new language by pairing sound files with text as well as to provide support to language learners by providing visuals to supplement material being taught. Additionally, studies have suggested that real-time audio and visual input during effective instruction can help learners understand complex concepts and build fluency in language acquisition. This review supports the use of audio and visual processing as a cognitive tool in English language learning and provides further empirical studies for future research in this field.

No. of Pages : 10 No. of Claims : 10



ORIGINAL

क्रम सं/ Serial No. : 156409



पेटेंट कार्यालय, भारत सरकार

The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र

Certificate of Registration of Design

डिजाइन सं. / Design No. : 402651-001

तारीख / Date : 20/12/2023

पारस्परिकता तारीख / Reciprocity Date\* : -

देश / Country : भारत

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **AQUATIC MICROBIOME ANALYSIS DEVICE** से संबंधित है, का पंजीकरण, श्रेणी 24-01 में 1. Dr. Kayeen Vadakkan 2. Dr. Aruliah Rajasekar 3. Dr. Kuppusamy Sathishkumar के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 24-01 in respect of the application of such design to **AQUATIC MICROBIOME ANALYSIS DEVICE** in the name of 1. Dr. Kayeen Vadakkan 2. Dr. Aruliah Rajasekar 3. Dr. Kuppusamy Sathishkumar.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्याधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 09/02/2024  
Date of Issue :



*(Signature)*

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न  
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ORIGINAL  
क्रम सं/ Serial No. : 150753



पेटेंट कार्यालय, भारत सरकार

The Patent Office, Government Of India

डिजाइन के पंजीकरण का प्रमाण पत्र

Certificate of Registration of Design

डिजाइन सं. / Design No. : 398882-001

तारीख / Date : 31/10/2023

पारस्परिकता तारीख / Reciprocity Date\* : -

देश / Country : भारत

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **OCEAN OIL CLEANUP DEVICE** से संबंधित है, का पंजीकरण, श्रेणी 15-05 में 1.Dr. Maya Rajan Mundanattu 2. Dr. Kayeen Vadakkan 3.Dr. Vijayanand Selvaraj के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 15-05 in respect of the application of such design to **OCEAN OIL CLEANUP DEVICE** in the name of 1.Dr. Maya Rajan Mundanattu 2. Dr. Kayeen Vadakkan 3.Dr. Vijayanand Selvaraj.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यायान प्रवधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

जारी करने की तिथि : 22/12/2023  
Date of Issue



*(Signature)*

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न  
Controller General of Patents, Designs and Trade Marks

\*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वतः अधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।  
The reciprocity date (if any) which has been allowed and the name of the country. Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years. This Certificate is not for use in legal proceedings or for obtaining registration abroad.

— Bundesrepublik Deutschland —

# Urkunde

Über die Eintragung des  
Gebrauchsmusters Nr. 20 2022 101 027

Bezeichnung:

Ein System zur Behandlung von Pseudomonas aeruginosa-Infektionen unter  
Verwendung von Solanum torvum-Wurzelextrakt

IPC:

A61K 36/81

Inhaber/Inhaberin:

Vadakkan, Kayeen, Dr., Thrissur, Kerala, IN  
Vijayanand, Selvaraj, Dr., Vellore, Tamil Nadu, IN

Tag der Anmeldung:

23.02.2022

Tag der Eintragung:

03.03.2022

Die Präsidentin des Deutschen Patent- und Markenamts

*Cornelia R. Rudolf-Schäfer*

Cornelia Rudolf-Schäfer

München, 03.03.2022



Die Voraussetzungen der Schutzfähigkeit werden bei der Eintragung eines Gebrauchsmusters nicht geprüft.  
Den aktuellen Rechtsstand und Schutzzumfang entnehmen Sie bitte dem DPMA-Register unter [www.dpma.de](http://www.dpma.de).

(12) PATENT APPLICATION PUBLICATION

(21) Application No. 202241058758 A

(19) INDIA

(22) Date of filing of Application : 14/10/2022

(43) Publication Date : 21/10/2022

(54) Title of the invention : PRODUCTION OF BACTERIORUBERIN PIGMENT FROM SALINICOCCUS SALSIRAIÆ (MP-4) - A MODERATE HALOPHILIC BACTERIAL SPECIES ISOLATED FROM SOLAR SALTERNS AND DETERMINATION OF THEIR OPTIMAL CONDITION USING RESPONSE SURFACE METHODOLOGY (RSM)

(51) International classification : C12N0001200000, C02F0003340000, G01N0017000000, B01L0009000000, C01D0003060000

(86) International Application No : NA  
Filing Date : NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number : NA  
Filing Date : NA

(62) Divisional to Application Number : NA  
Filing Date : NA

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(57) Abstract :

Abstract This study used solar salterns samples, such as solar salts and sun dried salted fish, to isolate a pigmented halophilic bacterial strain of *Salmicoccus salsiraiæ* (MP-4). Solar salterns are one of the extreme environments contain high NaCl concentration which provide the environmental conditions suitable only for specially adapted halophiles. Halophiles belong to all three domains of life and are classified into three groups based on their need for NaCl for survival: slight halophiles, moderate halophiles, and extreme halophiles. Their natural behaviour in high salinity regions has provided them with a number of novel elements and mechanisms that can be used in a wide range of applications. Their pigments play an important role in different areas. Despite the fact that a vast area is dedicated to salt production, little is known about the halophilic biodiversity in Indian salterns, particularly the current study site (Markkanam, salt pan, and sun-dried salted fish sample). As a result, the current study focuses on the isolation and identification of a novel halophilic chromogenic bacterial isolate and its novel pigment production.

No. of Pages : 11 No. of Claims : 4



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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341002528 A

(19) INDIA

(22) Date of filing of Application :12/01/2023

(43) Publication Date : 03/02/2023

(54) Title of the invention : PREDICTION THE STRUCTURE OF NOVEL PROTEIN FROM THE BACILLUS AQUIMARIS (MP-1) NUCLEOTIDE SEQUENCE BASED ON MACHINE LEARNING ALGORITHMS

(51) International classification :A61K0036258000, C12N0001200000, C12R0001010000, C12P0019020000, A23L0017000000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA  
Filing Date :NA

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-----

(57) Abstract :

1. The suggested methodology is effective for isolating and identifying chroococcoid moderate halophilic bacterial strains from solar salterns (solar salt pans and sun-dried salted fish) employing morphological, biochemical, and molecular techniques (16S rRNA gene sequences).

No. of Pages : 15 No. of Claims : 3