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पेटेंट कार्यालय  
THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 Of The Patents Rules)

क्रमांक : 044112788  
SL No :



पेटेंट सं. / Patent No. : 318480  
आवेदन सं. / Application No. : 18/CHE/2014  
फाइल करने की तारीख / Date of Filing : 03/01/2014  
पेटेंटी / Patentee : 1.KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY 2.INNASI MUTHU GANESH MOORTHY

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित AN ALKALINE PROTEASE ENZYME PURIFYING, RECOVERING APPARATUS AND PROCESS THEREOF नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 3rd day of January 2014 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled AN ALKALINE PROTEASE ENZYME PURIFYING, RECOVERING APPARATUS AND PROCESS THEREOF as disclosed in the above mentioned application for the term of 20 years from the 3rd day of January 2014 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 20/08/2019  
Date of Grant :

*Okrajla*  
पेटेंट नियंत्रक  
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 3rd day of January 2016 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 3rd day of January 2016 and on the same day in every year thereafter.



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THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 Of The Patents Rules)

क्रमांक : 044125801  
SL No :



पेटेंट सं. / Patent No. : 355156  
आवेदन सं. / Application No. : 201741014528  
फाइल करने की तारीख / Date of Filing : 24/04/2017  
पेटेंटी / Patentee : 1.KAMARAJ COLLEGE OF ENGINEERING &  
TECHNOLOGY 2.RONALDO ANUF. A 3.GANESH  
MOORTHY. I

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित EFFECTIVE BIOLOGICAL DELIGNIFICATION OF NOXIOUS LIGNOCELLULOSIC SUBSTRATE PROSOPIS JULIFLORA FOR BIOETHANOL PRODUCTION WITH NEWLY ISOLATED PAECILOMYCES SP. GARJ नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 24th day of April 2017 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled EFFECTIVE BIOLOGICAL DELIGNIFICATION OF NOXIOUS LIGNOCELLULOSIC SUBSTRATE PROSOPIS JULIFLORA FOR BIOETHANOL PRODUCTION WITH NEWLY ISOLATED PAECILOMYCES SP. GARJ as disclosed in the above mentioned application for the term of 20 years from the 24th day of April 2017 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 01/01/2021  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 24th day of April 2019 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 24th day of April 2019 and on the same day in every year thereafter.



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THE PATENT OFFICE

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PATENT CERTIFICATE  
(Rule 74 Of The Patents Rules)

क्रमांक : 044134116  
SL No :



पेटेंट सं. / Patent No. : 377808  
आवेदन सं. / Application No. : 202041053515  
फाइल करने की तारीख / Date of Filing : 09/12/2020  
पेटेंटी / Patentee : DR. B. KARTHIKEYAN

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित A SIMPLE METHOD TO SYNTHESIZE CERIUM OXIDE NANOMATERIAL WITH ENHANCED ELECTROCHEMICAL PROPERTIES नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 9th day of December 2020 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled A SIMPLE METHOD TO SYNTHESIZE CERIUM OXIDE NANOMATERIAL WITH ENHANCED ELECTROCHEMICAL PROPERTIES as disclosed in the above mentioned application for the term of 20 years from the 9th day of December 2020 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 24/09/2021  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 9th day of December 2022 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 9th day of December 2022 and on the same day in every year thereafter.



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# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021107057

The Commissioner of Patents has granted the above patent on 17 November 2021, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**

K. Kala of Associate Professor, Department of Computer Science, Nachiappa swamigal Arts and Science College Koviloor, Karaikudi Tamil Nadu 630307 India

V.A. PRAVINA of Assistant Professor, Department of Electronics and Communication Engineering, DMI College of Engineering NH-48, Palanchur, Nazarethpet Post Chennai, Tamil Nadu 600123 India

P.K. Poonguzhali of Associate Professor, Department of Electronics and Communication Engineering, Hindusthan College of Engineering and Technology Othakalmandapam, Coimbatore Tamil Nadu 641032 India

R. Vidhya of Associate Professor, Department of Computer Science and Engineering, Hindusthan College of Engineering and Technology Othakalmandapam Coimbatore 641032 India

B. G. Geetha of Professor, Department of Computer Science and Engineering, K.S. Rangasamy College of Technology Tiruchengode Tamil Nadu 637215 India

D. Vendhan of Assistant Professor, Department of Information Technology, KAMARAJ College of Engineering and Technology SPGC Nagar, K. Vellakulam Madurai, Tamil Nadu 625701 India

S. Abarna of Assistant Professor, Department of Computer Science and Engineering, Grace College of Engineering Mullakkadu Tuticorin, Tamil Nadu 628005 India

M. Krishna Kumar of Assistant Professor, Department of Electronics and Communication Engineering, Grace College of Engineering Mullakkadu Tuticorin, Tamil Nadu 628005 India

T. Murugeswari of Assistant Professor, Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology, Valley campus Pollachi Highway Coimbatore Tamil Nadu, 641032 India

T. Manjula of Assistant Professor, Department of Electrical and Electronics Engineering, Hindusthan College of Engineering and Technology, Valley campus Pollachi Highway Coimbatore Tamil Nadu, 641032 India

**Title of invention:**

Node discovery mechanism for IoT capillary Networks

**Name of inventor(s):**

Kala, K.; PRAVINA, V. A.; Poonguzhali, P. K.; Vidhya, R.; Geetha, B. G.; Vendhan, D.; Abarna, S.; Krishna Kumar, M.; Murugeswari, T. and Manjula, T.

**Term of Patent:**

Eight years from 24 August 2021



Dated this 17<sup>th</sup> day of November 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

This data, for application number 2021107057, is current as of 2022-01-31 21:00 AEST



Australian Government

IP Australia

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021107057

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.



Dated this 17<sup>th</sup> day of November 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

## Extracts from the Patents Act, 1990

**Sect 120(1A)** Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

**Sec 128**                    **Application for relief from unjustified threats**

- (1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:
- (a) a declaration that the threats are unjustifiable; and
  - (b) an injunction against the continuance of the threats; and
  - (c) the recovery of any damages sustained by the applicant as a result of the threats.
- (2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

**Sec 129A**                    **Threats related to an innovation patent application or innovation patent and courts power to grant relief.**

*Certain threats of infringement proceedings are always unjustifiable.*

- (1) If:
- (a) a person:
    - (i) has applied for an innovation patent, but the application has not been determined; or
    - (ii) has an innovation patent that has not been certified; and
  - (b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be; then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

*Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent*

- (2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the application the relief applied for.

*Courts power to grant relief in respect of threats made by the patentee of certified innovation patent*

- (3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

**Schedule 1**                    **Dictionary**

**certified**, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent



Australian Government

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# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021102178

The Commissioner of Patents has granted the above patent on 2 June 2021, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**

P. Asha of Assistant Professor, Dept.of Computer Science and Engineering Sathyabama Institute of Science and Technology, Jeppiaar Nagar, Chennai, Tamil Nadu - 600119 India

Arjun. S of CEO, Sentient Software Solutions Pvt. Ltd, Thamarai Tech Park, Level 5 S.P. Plot No.16-19 & 20A, Thiruvika Industrial Estate, Inner Ring Road, Chennai - 600 032 India

Krishna Priya of Senior Lecturer, Dept.of Electrical & Communication Engg., College of Engineering National University of Science and Technology, Muscat, Sultanate of Oman, Oman

Deivanai Gurusamy of Lecturer, Department of Information Technology, College of Informatics BuleHora University, Oromia Region- 144, Ethiopia

S. Balkani of Professor, Department of ECE, Government College of Engineering Tirunelveli – 627 007 India

M. Mohammadha Hussaini of Associate Professor & Head, Dept.of Electrical & Electronics Engg. Institute of Road and Transport Technology, Vasavi College Post, Erode – 638 316 India

M. Nisha Angeline of Professor and Head, Department of ECE Velalar College of Engineering and Technology, Thindal, Erode – 638 012 India

S. K. Manikandan of Professor, Dept.of Electrical & Electronics Engg. Velalar College of Engineering and Technology, Thindal, Erode – 638 012 India

Rajesh Muthumari of Director, Digicliff Solutions Private Limited, Plot No.4, Nagal nagar A.Kosakulam, Anaiyur post. Madurai North- 625 017 India

A. Rajavel of Assistant Professor, Dept.of Electronics&Instrumentation Engg Kamaraj College of Engineering and S.P.G.C. Nagar, K. Vellakulam – 625 701, Madurai, India

**Title of invention:**

CHALLENGE RESPONSE AUTHENTICATION MECHANISM WITH DYNAMIC QUESTIONS AGAINST BLIND ATTACKS FOR COGNITIVE IoT NETWORKS

**Name of inventor(s):**

Asha, P.; S., Arjun.; Priya, Krishna; Gurusamy, Deivanai; Balkani, S.; Hussaini, M. Mohammadha; Angeline, M. Nisha; Manikandan, S. K.; Muthumari, Rajesh and Rajavel, A.

**Term of Patent:**

Eight years from 24 April 2021



Dated this 2<sup>nd</sup> day of June 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.



**Australian Government**

**IP Australia**

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021102178

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.



Dated this 2<sup>nd</sup> day of June 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.



## Extracts from the Patents Act, 1990

**Sec 120(1A)** Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

**Sec 128**                      **Application for relief from unjustified threats**

- (1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:
- (a) a declaration that the threats are unjustifiable; and
  - (b) an injunction against the continuance of the threats; and
  - (c) the recovery of any damages sustained by the applicant as a result of the threats.
- (2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

**Sec 129A**                      **Threats related to an innovation patent application or innovation patent and courts power to grant relief.**

*Certain threats of infringement proceedings are always unjustifiable.*

- (1) If:
- (a) a person:
    - (i) has applied for an innovation patent, but the application has not been determined; or
    - (ii) has an innovation patent that has not been certified; and
  - (b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be; then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

*Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent*

- (2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the application the relief applied for.

*Courts power to grant relief in respect of threats made by the patentee of certified innovation patent*

- (3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

**Schedule 1**                      **Dictionary**

**certified**, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent



Australian Government

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# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021100847

The Commissioner of Patents has granted the above patent on 7 April 2021, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**

P. Swathika of Assistant Professor, Dept.of CSE, Kamaraj College of Engineering and Tech C Nagammal Campus, Vellakulam, Madurai District, Tamil Nadu- 625701 India

B. Vinoth Kumar of Assistant Professor, Compter Applications, Ayya Nadar Janaki Ammal College Sivakasi Tamil Nadu- 626123 India

P. Abinaya of Assistant Professor, Dept.of CSE, Mepco Schlenk Engineering College Mepco Nagar Sivakasi, Tamil Nadu - 626005 India

**Title of invention:**

BLOCKCHAIN BASED MULTIPLE AUTHORITIES SIGNATURE MODEL FOR INDUSTRIAL IOT APPLICATIONS

**Name of inventor(s):**

Swathika, P.; Vinoth Kumar, B. and Abinaya, P.

**Term of Patent:**

Eight years from 10 February 2021

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.



Dated this 7<sup>th</sup> day of April 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

## Extracts from the Patents Act, 1990

**Sect 120(1A)** Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

**Sec 128**                                 **Application for relief from unjustified threats**

- (1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:
- (a) a declaration that the threats are unjustifiable; and
  - (b) an injunction against the continuance of the threats; and
  - (c) the recovery of any damages sustained by the applicant as a result of the threats.
- (2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

**Sec 129A**                                 **Threats related to an innovation patent application or innovation patent and courts power to grant relief.**

*Certain threats of infringement proceedings are always unjustifiable.*

- (1) If:
- (a) a person:
    - (i) has applied for an innovation patent, but the application has not been determined; or
    - (ii) has an innovation patent that has not been certified; and
  - (b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be; then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

*Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent*

- (2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the applicant the relief applied for.

*Courts power to grant relief in respect of threats made by the patentee of certified innovation patent*

- (3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

**Schedule 1**                                 **Dictionary**

**certified**, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent



ORIGINAL

मूल/No : 124110



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GOVERNMENT OF INDIA  
पेटेंट कार्यालय  
THE PATENT OFFICE

डिजाइन के पंजीकरण का प्रमाणपत्र  
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No. : 364426-001  
तारीख / Date : 19/05/2022  
पारस्परिकता तारीख / Reciprocity Date\* :  
देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **SOLAR PANEL** से संबंधित है, का पंजीकरण, श्रेणी **13-04** में 1.Dr. D. Prince Winston 2. Dr. B. Gurukarthik Babu 3.Dr. G. Sakthivel 4.Mr. S. Ramesh Prabhu 5.Mr. T. Hariharasudhan 6.Ms. S. Suriya Kala 7.Mr. M. Pravin 8.Mr. P. Meenatchi Sundaram के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

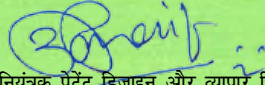
Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **13-04** in respect of the application of such design to **SOLAR PANEL** in the name of 1.Dr. D. Prince Winston 2. Dr. B. Gurukarthik Babu 3.Dr. G. Sakthivel 4.Mr. S. Ramesh Prabhu 5.Mr. T. Hariharasudhan 6.Ms. S. Suriya Kala 7.Mr. M. Pravin 8.Mr. P. Meenatchi Sundaram.

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.

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निर्गमन की तारीख/Date of Issue : 06/01/2023

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

पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति देश के नाम पर की गई है। डिजाइन का सत्त्वाधिकार 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.



**INTELLECTUAL  
PROPERTY INDIA**

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GEOGRAPHICAL INDICATIONS



सत्यमेव जयते

भारत सरकार  
GOVERNMENT OF INDIA

पेटेंट कार्यालय  
THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 of The Patents Rules)

क्रमांक : 044142163  
SL No :



पेटेंट सं. / Patent No. : 399456  
आवेदन सं. / Application No. : 4630/CHE/2013  
फाइल करने की तारीख / Date of Filing : 15/10/2013  
पेटेंटी / Patentee : KAMARAJ COLLEGE OF ENGINEERING AND  
TECHNOLOGY

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित A MECHANICAL HEART PUMP MACHINE नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख अक्टूबर 2013 के पंद्रहवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled A MECHANICAL HEART PUMP MACHINE as disclosed in the above mentioned application for the term of 20 years from the 15<sup>th</sup> day of October 2013 in accordance with the provisions of the Patents Act, 1970.



अनुदान की तारीख : 17/06/2022  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

**टिप्पणी** - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, अक्टूबर 2015 के पंद्रहवें 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 15<sup>th</sup> day of October 2015 and on the same day in every year thereafter.



ORIGINAL

मूल/No : 131400



भारत सरकार  
GOVERNMENT OF INDIA  
पेटेंट कार्यालय  
THE PATENT OFFICE

डिजाइन के पंजीकरण का प्रमाणपत्र  
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No. : 375461-001  
तारीख / Date : 12/12/2022  
पारस्परिकता तारीख / Reciprocity Date\* :  
देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **SPACER WITH STRIP SLOT FOR TUBELESS TIRE** से संबंधित है, का पंजीकरण, श्रेणी **12-16** में 1.Dr K Kannan 2. Dr M Prithiviraj 3.Mr R Rajprabu 4.Mr S David Blessley 5.Dr S Jeya Devi के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

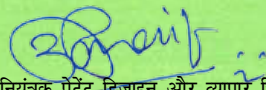
Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **12-16** in respect of the application of such design to **SPACER WITH STRIP SLOT FOR TUBELESS TIRE** in the name of 1.Dr K Kannan 2. Dr M Prithiviraj 3.Mr R Rajprabu 4.Mr S David Blessley 5.Dr S Jeya Devi.

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.

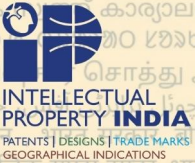
INTELLECTUAL  
PROPERTY INDIA  
PATENTS | DESIGNS | TRADE MARKS  
GEOGRAPHICAL INDICATIONS

निर्गमन की तारीख/Date of Issue : 20/03/2023

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

पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति देश के नाम पर की गई है। डिजाइन का सत्त्वाधिकार 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.



ORIGINAL  
क्रम सं/ Serial No.: 143518



**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. : 387284-001

तारीख / Date : 30/05/2023

प्रारस्परिकता तारीख / Reciprocity Date\* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **INCENSE BURNER** से संबंधित है, का पंजीकरण, श्रेणी 11-02 में 1.Dr M Prithiviraj 2. Mr R Rajprabu 3.Dr K Kannan 4.Dr S Senthil 5.Ms M Sangeetha Lakshmi 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 11-02 in respect of the application of such design to **INCENSE BURNER** in the name of 1.Dr M Prithiviraj 2. Mr R Rajprabu 3.Dr K Kannan 4.Dr S Senthil 5.Ms M Sangeetha Lakshmi.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अधधीन 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 : 06/09/2023  
Date of Issue



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

\*प्रारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार 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.



सत्यमेव जयते



पेटेंट कार्यालय, भारत सरकार

The Patent Office, Government Of India

पेटेंट प्रमाण पत्र

Patent Certificate

(पेटेंट नियमावली का नियम 74)

(Rule 74 of The Patents Rules)

पेटेंट सं. / Patent No.

534498

आवेदन सं. / Application No.

201841019073

फाइल करने की तारीख / Date of Filing

22/05/2018

पेटेंटी / Patentee

1.G.KARTHIKEYAN 2.DR.D.PRINCE WINSTON 3.B.PRAVEEN KUMAR 4.DR.S.KALYANI

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित COUPLE MATCHING AND CURRENT INJECTION BASED PV CIRCUIT FOR PARTIALLY SHADED PV SYSTEMS नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख मई 2018 के बाईसवें दिन से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled COUPLE MATCHING AND CURRENT INJECTION BASED PV CIRCUIT FOR PARTIALLY SHADED PV SYSTEMS as disclosed in the above mentioned application for the term of 20 years from the 22nd day of May 2018 in accordance with the provisions of the Patents Act, 1970.



इकांत की संज्ञा

अनुदान की तारीख

23/04/2024

Date of Grant

पेटेंट नियंत्रक

Controller of Patents

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, मई 2020 के बाईसवें 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 22nd day of May 2020 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







ORIGINAL

क्रम सं/ Serial No. : 166543



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. : 407961-001

तारीख / Date : 19/02/2024

पारस्परिकता तारीख / Reciprocity Date\* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो MICROSTRIP ARRAY ANTENNA USING SPACE FILLING CURVE से संबंधित है, का पंजीकरण, श्रेणी 14-03 में 1.Kamaraj College Of Engineering And Technology 2. Dr.N.M.Mary Sindhuja 3.Dr.T.Pandiselvi 4.Mrs.C.Nagavani 5.Mr.R.Rajprabu 6.Mr.R.Ashok 7.Ms.R.Mathu Mietha 8.Ms.T.N.Avushatha 9.Ms.V.Karthikadevi 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 14-03 in respect of the application of such design to MICROSTRIP ARRAY ANTENNA USING SPACE FILLING CURVE in the name of 1.Kamaraj College Of Engineering And Technology 2. Dr.N.M.Mary Sindhuja 3.Dr.T.Pandiselvi 4.Mrs.C.Nagavani 5.Mr.R.Rajprabu 6.Mr.R.Ashok 7.Ms.R.Mathu Mietha 8.Ms.T.N.Avushatha 9.Ms.V.Karthikadevi.

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.



उत्पात की संज्ञि

महानियंत्रक पेटेंट, डिजाइन और व्यापार चिह्न

Controller General of Patents, Designs and Trade Marks

जारी करने की तिथि : 26/04/2024  
Date of Issue

\*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार 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.



ORIGINAL

क्रम सं/ Serial No. : 168401



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. : 408543-001

तारीख / Date : 23/02/2024

पारस्परिकता तारीख / Reciprocity Date\* :

देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो LUGGAGE RACK WITH FOLDABLE SOLAR PANEL FOR E-VEHICLE से संबंधित है, का पंजीकरण, श्रेणी 12-16 में 1.Dr.S.Thanga Kasi Rajan 2. Mr.G Anand 3.Mr.M.Dinesh Karthick 4.Mr. P. Thirumurugan 5.Mr. B.K.Parrthipan 6.Dr.J.Rajesh Babu 7.Dr. P.Sureshkumar 8.Mr. S.Alwyn Rajiv 9.Dr. S.Senthil 10.Dr. S.Gandhi 11.Dr. R.Suresh Babu 12.Dr. D.Prince Winston 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 12-16 in respect of the application of such design to LUGGAGE RACK WITH FOLDABLE SOLAR PANEL FOR E-VEHICLE in the name of 1.Dr.S.Thanga Kasi Rajan 2. Mr.G Anand 3.Mr.M.Dinesh Karthick 4.Mr. P. Thirumurugan 5.Mr. B.K.Parrthipan 6.Dr.J.Rajesh Babu 7.Dr. P.Sureshkumar 8.Mr. S.Alwyn Rajiv 9.Dr. S.Senthil 10.Dr. S.Gandhi 11.Dr. R.Suresh Babu 12.Dr. D.Prince Winston.

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

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



Signature of Controller General

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

जारी करने की तिथि : 09/05/2024  
Date of Issue

\*पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति दी गई है तथा देश का नाम। डिजाइन का स्वत्वाधिकार 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.