

[illegible]





**INTELLECTUAL  
PROPERTY INDIA**

एकस्व/PATENTS | अभिकल्प/DESIGNS |  
व्यापार चिह्न/TRADE MARKS | भौगोलिक  
उपदर्शन/GEOGRAPHICAL INDICATIONS



**भारत सरकार  
GOVERNMENT OF INDIA**

एकस्व कार्यालय / THE PATENT OFFICE  
बौद्धिक सम्पदा भवन / I.P.O. BUILDING  
जी.एस.टी.रोड, गिन्डी / G.S.T.Road, Guindy,  
चेन्नई / Chennai- 600032  
दूरभाष / Tel. No. : (091)(044)22502081-84  
फैक्स / Fax: 044 22502066

Email/ई मेल : [Chennai-patent@nic.in](mailto:Chennai-patent@nic.in)  
वेबसाइट / Website: <http://ipindia.nic.in>

सं. \ No. 201941035383

दिनांक \ Dated the 22/12/2023

सेवा में, \ To :

Address of Service:- ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI,  
DAKSHINA KANNADA - 574 225, KARNATAKA, INDIA.  
Email Id:- rpinto1942@gmail.com

विषय :- पेटेंट आवेदन संख्या 201941035383 के संबंध में अधिनियम की धारा 43 के तहत पेटेंट अनुदान तथा पेटेंट रजिस्टर में प्रविष्टि की सूचना  
Sub :- Intimation of the grant and recordal of patent under section 43 of the Act in respect of patent application no. 201941035383

महोदय/महोदया,  
Sir/Madam,

आपको सूचित किया जाता है कि पेटेंट अधिनियम, 1970 की धारा 12 व 13 तथा उस आधार पर बने नियम के तहत उपर्युक्त पेटेंट आवेदन के परीक्षण [व ----- को हुई सुनवाई] के उपरान्त एतद्वारा पेटेंट अनुदान किया जाता है। तथा पेटेंट अनुदान की प्रविष्टि 22/12/2023 को पेटेंट रजिस्टर में कर दी गयी है।

This is to Inform you that following the examination of above mentioned patent application under section 12 and 13 of The Patents Act, 1970 and Rules made thereunder [and hearing held on ----- ] a patent is hereby granted and recorded in the Register of Patents on the 22/12/2023. The Patent Certificate is enclosed herewith.

पेटेंट संख्या \ Patent No	: 487817
आवेदक का नाम \ Name Of Applicant	: ALVA'S EDUCATION FOUNDATION
पेटेंट दिनांक \ Date of Patent	: 03/09/2019
पूर्विका तिथि \ Priority Date	: 03/09/2019
परीक्षण हेतु अनुरोध दाखिल करने की तिथि \ Filing date of Request for examination	: 25/08/2021
शीर्षक \ Title	: A PROCESS FOR ENHANCING HYDROGEN FUEL CELLS PERFORMANCE WITH NAFION PROTON EXCHANGE MEMBRANE OPTIMAL
दावों की संख्या \ Number of claims	: 1
Controller' Name	: Anil Suwalka
Controller' Email	: anil ipo@nic.in
Controller' Location	: Delhi

उपर्युक्त पेटेंट के अनुदान का प्रकाशन अधिनियम की धारा 43 के तहत पेटेंट कार्यालय के आधिकारिक जर्नल में किया जाएगा।  
The grant of above mentioned patent will be published in the Official Journal of the patent Office under section 43 of the Act.

पेटेंट अधिनियम 1970 यथा संशोधित पेटेंट (संशोधन) नियम, 2005/ पेटेंट नियम, 2003 यथा संशोधित पेटेंट (संशोधन) नियम, 2016 की धारा 142 की उप-धारा (4) के प्रावधानों के तहत उपरोक्त प्रविष्टि की तिथि से 3 माह के भीतर इस कार्यालय में नवीकरण शुल्क जमा किया जाना चाहिए।

The payment of renewal fee is required to be made at this office within three(3) months from the aforesaid date of recording according to the proviso in sub-section(4) of Section 142 of The Patents Act, 1970, as amended by The Patents (Amendment) Act, 2005 / The Patents Rules, 2003 as amended by The Patents (Amendment) Rules, 2016.

Anil Suwalka

(नियंत्रक पेटेंट)

Controller of Patents

टिप्पणी / Note :

1. संशोधित नवीकरण शुल्क हेतु कृपया महानियंत्रक पेटेंट, अभिकल्प एवं व्यापार चिह्न की आधिकारिक वेबसाइट [www.ipindia.gov.in](http://www.ipindia.gov.in) पर उपलब्ध पेटेंट (संशोधन) नियम 2016 की प्रथम अनुसूची (शुल्क) देखें।

For revised renewal fees kindly refer to the First Schedule (fees) of The Patents (Amendment) Rules 2016 available on the official website of Controller General of Patents, Designs and Trade Marks [www.ipindia.gov.in](http://www.ipindia.gov.in)

2. कार्यालय द्वारा पेटेंट प्रमाणपत्र की कोई भी कागजी प्रति अलग से जारी नहीं की जाएगी।

No hard copy of Patent Certificate shall be issued separately by the office.

FORM 1  
THE PATENTS ACT 1970  
(39 of 1970) &  
The Patent Rules, 2003  
APPLICATION FOR GRANT OF  
PATENT  
(See section 7, 54 & 135, and rule  
20(1))

(FOR OFFICE USE ONLY)

Application No:  
Filing Date:  
Amount of fee paid:  
CBR No:  
Signature:



700340456

Application No.	201941035383
Filing date:	08:09:2019
Amount of Fee paid:	8800/-
CBR No:	28446
Signature	<i>[Signature]</i>

1. APPLICANT'S REFERENCE /  
IDENTITY NUMBER. (AS ALLOTTED BY  
OFFICE)

2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]

Ordinary (✓)	Convention ()	PCT-NP ()
Divisional ()	Patent of Addition ()	Divisional ()
	Patent of Addition ()	Patent of Addition ()

3A. APPLICANTS

Name in Full	Nationality	Country of Residence	Address of Applicant
ALVA'S EDUCATION FOUNDATION	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA

3B. CATEGORY OF APPLICANT [Please tick (✓) at the appropriate category]

Natural Person (✓)		Others ()
--------------------	--	-----------

4. INVENTOR(S) [Please tick (✓) at the appropriate category]

Are all the inventor(s) same as the applicant(s) named above?	Yes ()	No (✓)
---	--------	--------

If NO furnish the details of the inventors

Name in Full	Nationality	Country of Residence	Address of Inventor (s)
PREETHAM CASTELINO	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
SOHAN POOJARI	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
SUNNY RAMNIWAS SHARMA	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR,

			MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
<b>POOJARI PRASHANT SHEKAR</b>	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
<b>CHIRAG SATISH POOJARI</b>	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
<b>JAYARAMA ARASALIKE</b>	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
<b>SATYANARAYAN</b>	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
<b>RICHARD PINTO</b>	Indian	India	ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY, SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA
<b>SHRIGANESH PRABHU</b>	Indian	India	DEPARTMENT OF CONDENSED MATTER PHYSICS, TATA INSTITUTE OF FUNDAMENTAL RESEARCH, MUMBAI, 400005
<b>SIDDHARTHA PRAKASH DUTTAGUPTA</b>	Indian	India	DEPARTMENT OF ELECTRICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY, BOMBAY, MUMBAI, 400076

**5. TITLE OF THE INVENTION**

**" A PROCESS FOR ENHANCING HYDROGEN FUEL CELLS PERFORMANCE WITH NAFION PROTON EXCHANGE MEMBRANE OPTIMALLY EXPOSED TO ULTRAVIOLET RAYS "**

**6. AUTHORISED REGISTERED PATENT AGENT(S)**



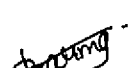

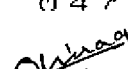
	NA
Name	NA
Mobile no.	NA

**7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA**

Name	<b>ALVA'S EDUCATION FOUNDATION</b>
Postal Address	<b>ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY SHOBHAVANA CAMPUS, MIJAR, MOODBIDRI, DAKSHINA KANNADA - 574225, KARNATAKA, INDIA</b>
Telephone No.	-

PATENT OFFICE CHENNAI


04/09/2019 1

		Mobile No.		09892818760/ 09920818760	
		Fax No.		08258 - 262726	
		E-Mail ID		rpinto1942@gmail.com	
8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILLED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION					
Country	Application number	Filing date	Name of applicant	Title of invention	IPC (as classified in the convention country)
Not Applicable					
9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATIVE TREATY (PCT)					
International application number: Not Applicable			International filing date: Not Applicable		
10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION					
Original (first) application number: Not Applicable			Date of filing of Original (first) application: Not Applicable		
11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICANT OR PATENT					
Main application/ Patent Number: Not Applicable			Date of Filing of main application: Not Applicable		
12. DECLARATION					
i) Declaration by the inventors (In case the applicant is an assignee: the inventors may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/ electronic transmission duly authenticated within the prescribed period) We, the above named inventors are the true and first inventors for this invention and declare that the applicants herein are our assignee or legal representative.					
(i)					
(a) Date: 3/9/2019					
(b) Signature of the inventors: 					
(c) Name: PREETHAM CASTELINO					
(ii)					
(a) Date: 3/9/2019					
(b) Signature of the inventors: 					
(c) Name: SOHAN POOJARI					
(iii)					
(a) Date: 3-9-2019					
(b) Signature of the inventors: 					
(c) Name: SUNNY RAMNIWAS SHARMA					
(iv)					
(a) Date: 3.9.2019					
(b) Signature of the inventors: 					
(c) Name: POOJARI PRASHANT SHEKAR					
(a) Date: 3/9/2019					
(b) Signature of the inventors: 					
(c) Name: CHIRAG SATISH POOJARI					

OFFICE CHENNAI 04/09/2019 16:00

vi)

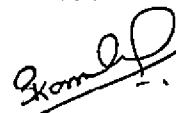
(a) Date: 3/9/2019

(b) Signature of the inventors: 

(c) Name: JAYARAMA ARASALIKE

(vii)

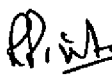
(a) Date: 3/9/2019

(b) Signature of the inventors: 

(c) Name: SATYANARAYAN

(viii)

(a) Date: 3.9.2019

(b) Signature of the inventors: 

(c) Name: RICHARD PINTO

(ix)

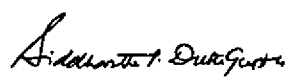
(a) Date: 3-9-2019

(b) Signature of the inventors: 

(c) Name: SHRIGANESH PRABHU

x)

(a) Date: 3/9/2019

(b) Signature of the inventors: 

(c) Name: SIDDHARTHA PRAKASH DUTTAGUPTA

ii) Declaration by the applicant:

I, the applicant hereby declare that:-

- ☐ I am in possession of the above mentioned invention.
- ☐ The provisional/complete specification relating to the invention is filed with this application.
- ☐ The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by us before the grant of the patent to us.
- ☐ There is no lawful ground of objection to the grant of the patent to us.
- ☐ I am the assignee or legal representative of true and first inventors.
- ☐ The application or each of the application, particulars of which are given in Para 5 was the first application in convention country/countries in respect of our invention.
- ☐ I claim the priority from the above mentioned applications filed in convention country and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which we derive the title.
- ☐ My application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Para - 9.
- ☐ The application is divided out of our application particulars of which are given in Para-10 and pray that this application may be treated as deemed to have been filed on.....under section 16 of the Act.
- ☐ The said invention is an improvement in or modification of the invention particulars of which are given in Para-11

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

(a) Form 2

Item	Details	Fee	Remarks
Complete specification	No. of Pages : 17		
No. of Claims	No. of claims : 1		
Abstract	No. of Pages : 1	₹ 800/-	Addl. pages - N/A
No. of Drawings	No. of drawings : 5		Addl. claims - N/A
	No. of pages : 5		

In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to mentioned here.

(b) Complete specification (in confirmation with the international application)/ as amended before the International preliminary Examination Authority (IPEA), as applicable (2 copies).

(c) Sequence listing in electronic format.

(d) Drawing (in confirmation with the international application)/ as amended before the International preliminary Examination Authority (IPEA), as applicable (2 copies).

(e) Priority document (s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.

(f) Translation of priority document/ Specification/ International Search Report/ International Preliminary Report on Patentability.

(g) Statement and Undertaking on Form 3.

(h) Declaration of Inventor ship on Form 5.

(i) Power of Attorney.

(j) Total Fee ₹ ----- in Cheque bearing no:  
dated this drawn from  
bank,

We hereby declare that to the best of our knowledge, information, and belief that the fact and matters stated herein are correct and we request that a patent may be granted to us for the said invention.

Dated this 3<sup>rd</sup> day of September, 2019.

For ALVA'S EDUCATION FOUNDATION,

Authorized Signatory:

Name in full: Dr. Mohan Alva

Designation: Chairman

Seal:

Chairman  
Alva's Education Foundation (R)  
MOODBIDRI - 574227, D.K.

To,  
The Controller of Patents,  
Patent Office Chennai,  
Chennai - 600 032.