



IPRs Developed by Faculty

Details of IPRs developed by faculty

Sr. No.	Date	Name of Faculty	Nature of IPR developed	Title of IPR	Status
1.	08/12/2021	Mr. Bhushan Behede	Utility patent	A novel acoustic fluidized bed device for heat transfer application	Granted
2.	01/07/2021	Mr. Yogesh Sonawane	Utility patent	An adjustable stirring and degassing system and method for use in a casting furnace	Published
3.	26/12/2022	Dr. Nilesh Salunke	Design patent	Centrifugal pump	Granted
4.	14/12/2023	Mr. Bhushan Behede	Design patent	Apparatus for synthesis of pharmaceutical nanosuspension	Granted
5.	16/07/2021	Mr. Dattatray Doifode	Utility patent	Artificial Intelligence Based Smart Solar Tracking Technique For Uninterrupted Powering System	Published



Australian Government

IP Australia

CERTIFICATE OF GRANT INNOVATION PATENT

Patent number: 2021107426

The Commissioner of Patents has granted the above patent on 8 December 2021, and certifies that the below particulars have been registered in the Register of Patents.

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Title of invention:

A NOVEL ACOUSTIC FLUIDIZED BED DEVICE FOR HEAT TRANSFER APPLICATION

Name of inventor(s):

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Term of Patent:

Eight years from 25 August 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 8th day of December 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.



CERTIFICATE

COMPLETE PATENT FILED

& PUBLISHED

It is hereby to certify that a Complete Patent Application No. 202121019606 Has been successfully filled and published for the invention entitled

**“AN ADJUSTABLE SIRRING AND DEGASSING SYSTEM AND METHOD FOR USE
IN A CASTING FURNACE”**

In the name of the following:

SANDHANSHIV RAHUL DILIP

PATIL DILIP MANGESH

SHARMA RAHUL SANJAY

DEORE KAILAS DHANRAJ

SHINDE NITIN GIRDHAR

SHINDE NILESH MOHAN

OZARKAR ROHAN RAJENDRA

SURYAWANSHI VIJAY KASHINATH

SONAWANE YOGESH DILIPRAO

PATHAK YOGESHKUMAR RAGHUNATH

As an applicant and inventor at the Indian Patent Gov. Office on dated

29th April 2021

[See Rule 22(3)]
RECEIPT

Docket No 22892

Date/Time 2021/04/29 11:21:46

CBR Detail:




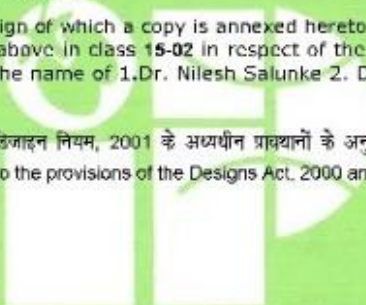
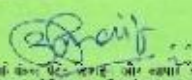
Sr. No.	Ref. No./Application No.	App. Number	Amount Paid	C.B.R. No.	Form Name	Remarks
1	E-12-648/2021/IRUM	202121019606	2500	10048	FORM 9	
2	202121019606	TEMP-E-1/21700/2021-IRUM	1600	10048	FORM 1	AN ADJUSTABLE SIRRING AND DEGASSING SYSTEM AND METHOD FOR USE IN A CASTING FURNACE
3	R20212015056	202121019606	4000	10048	FORM 18	

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		ORIGINAL
भारत सरकार GOVERNMENT OF INDIA पेटेंट कार्यालय THE PATENT OFFICE डिजाइन के पंजीकरण का प्रमाणपत्र CERTIFICATE OF REGISTRATION OF DESIGN		मूल/No : 121995
		
डिजाइन सं./ Design No.	:	368957-001
तारीख / Date	:	09/08/2022
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	
<p>प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो CENTRIFUGAL PUMP से संबंधित है, का पंजीकरण, श्रेणी 15-02 में 1.Dr. Nilesh Salunke 2. Dr. Hitesh Thakare 3.Dr. Amol Badgujar के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।</p> <p>Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 15-02 in respect of the application of such design to CENTRIFUGAL PUMP in the name of 1.Dr. Nilesh Salunke 2. Dr. Hitesh Thakare 3.Dr. Amol Badgujar.</p> <p>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.</p>		
		
INTELLECTUAL PROPERTY INDIA PATENTS DESIGNS TRADE MARKS GEOGRAPHICAL INDICATIONS		
निर्गमन की तारीख/Date of issue : 28/12/2022	 भारत के पेटेंट, डिजाइन, और वाणिज्यिक चिह्नों के नियंत्रक Controller General of Patents, Designs and Trade Marks	
<p>पारस्परिकता तारीख (जहाँ कोई भी विदेशी अनुयायी देश के नाम पर कोई भी डिजाइन का स्वामित्वपूर्ण पंजीकरण की तारीख से एक वर्ष के लिए होगा जिसका विस्तार अधिकतम एक निम्न के निम्न) के अधीन, एक वर्ष की अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाही में अलग-थलग के रूप में किया जा सकता है।</p> <p>*The reciprocity date (if any) which has been allowed and is to name of the country. Copyright in this 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 three years. This Certificate is not to use in legal proceedings or for obtaining registration abroad.</p>		



Department of Mechanical Engineering



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141029699 A

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(43) Publication Date : 16/07/2021

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED SMART SOLAR TRACKING TECHNIQUE FOR UNINTERRUPTED POWERING SYSTEM

(51) International classification	:H02S0020320000, F24S0050200000, F24S0030000000, H02S0020300000, G01S0003786000	(71)Name of Applicant : 1)Dr. Lijo Jacob Varghese,Christian College of Engineering and Technology Address of Applicant :Professor, Electrical and Electronics Engineering, Christian College of Engineering and Technology - Oddanchatram Tamil Nadu India 624619 Tamil Nadu India 2)Dr.Dattathreya,Alva's institute of Engineering and Technology 3)Jagadish S.Jakati,VYI 4)Jayaprakash Venugopal,Sathyabama Institute of Science and Technology, (Deemed To Be University) 5)Dr. C. Srinivas Gupta,Mallareddy Engineering College 6)Archana Patil,RITW, Hyderabad 7)Dattatray Sadashiv Doifode,SVKM'S Institute of technology 8)Dr. M. Murali,KSRM College of Engineering 9)Dr. Sushma Jaiswal,Guru Ghasidas Vishwavidyalaya 10)Dr. Saroj Kumar,JAIN Deemed to be University 11)Deepak Gowda .L,ACS College Of Engineering 12)Dr.S.K. Manju bargavi,Jain (Deemed-to-be) University
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(57) Abstract :

This invention focuses on Artificial Intelligence (AI) based solar tracking system to replace the utility power by renewable solar power to meet the increasing demand of energy. Optimal solar power can be generated only when the solar panels are exposed to direct sunlight. But any change in weather condition results in cloudiness in real time, in such case angle of the solar panel has to be turned towards the sunlight. This invention proposes a novel smart powering technique where the solar energy is tracked in an autonomous way for increasing the production of solar energy. The solar tracker fixed biaxially is equipped with two small solar modules additionally. First module is horizontally installed and the second module is installed biaxially in the solar tracker. Position of the solar panel is controlled by the AI algorithm which takes input from prior data on sun trajectory through the year and also on output current generated from the solar panels. When sun light reduces due to clouds, then the current from small solar horizontal module will be more that of module oriented to the sun. This system is able to generate 18% solar energy more than conventional system in the presence of clouds.

No. of Pages : 9 No. of Claims : 6

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