

CERTIFICATE OF GRANT INNOVATION PATENT

Patent number: 2021104639

The Commissioner of Patents has granted the above patent on 11 May 2022, and certifies that the below particulars have been registered in the Register of Patents.

Name and address of patentee(s):

Syed Arshad Hussain of Associate Professor, Thin films and Nanoscience Laboratory, Department of Physics Tripura University Suryamaninagar Tripura India

Debajyoti Bhattacharjee of Professor, Thin films and Nanoscience Laboratory, Department of Physics Tripura University Suryamaninagar, Tripura India

Swapan Majumdar of Professor, Department of Chemistry Tripura, University Suryamaninagar Tripura 799022 India

Title of invention:

A PROCESS FOR PREPARATION OF A CLAY MINERAL-ORGANIC HYBRID

Name of inventor(s):

Hussain, Syed Arshad; Bhattacharjee, Debajyoti; Majumdar, Swapan; Kawamata, Jun; Suzuki, Y.; Sarkar, Surajit; Chakraborty, Santanu; Dey, Bapi; Deb, Barnali and Suklabaidya, Sudip

Term of Patent:

Eight years from 28 July 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 11th day of May 2022

Commissioner of Patents

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 paragraph101E(e) in respect of the patent

(19) INDIA

(22) Date of filing of Application :20/01/2021

(43) Publication Date: 22/07/2022

(54) Title of the invention : SYSTEM AND METHOD FOR DETECTING OBJECT IN ADVERSE ATMOSPHERE BY RESTORING DEGRADED IMAGE IN DEEP CONVOLUTIONAL LAYER

(51) International classification	:G06N0003040000, G06K0009000000, G06K0009620000, G06T0005000000, G06N0003080000	(71)Name of Applicant: 1)TRIPURA UNIVERSITY Address of Applicant: Department of Computer Science and Engineering, Suryamaninagar, PIN-799022, Agartala, Tripura, India Tripura India
(31) Priority Document No	:NA	(72)Name of Inventor:
(32) Priority Date	:NA	1)ANU SINGHA
(33) Name of priority country	:NA	2)SOURAV DEY ROY
(86) International Application No	:NA	3)MRINAL KANTI BHOWMIK
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number Filing Date	:NA :NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	
		1

(57) Abstract:

The present invention discloses a system (101A) and method for detecting objects in real-time adverse weather-degraded scenes. A single-stage CNN architecture is adopted, namely, AWDRDNet (100) for detecting objects more accurately in adverse weather-degraded realistic scenes. The present invention relates to a feed-forward deeper convolutional layer comprising a plurality of convolution blocks (B1,...,BK,...,BN) producing better quality of restoration images (RI1,...,RIK,...,RIN); wherein receptive field plays an important role in analyzing local features over degraded scenes. Another key feature of the proposed invention is the clipping of pre-defined multi-scale anchor boxes per cell to a restorated de-convolutional feature map (DC) only at the top of the network, which allows to efficiently reduce time-consumption. In terms of detection accuracy (recall-precision graph and mAP), the results of the reference dataset demonstrates the optimal performance of the proposed model and reveals the performance accuracy in low-light or rainy conditions to be higher than that in dusty or foggy conditions.

No. of Pages: 49 No. of Claims: 16

Bundesrepublik Deutschland

Urkunde

über die Eintragung des Gebrauchsmusters Nr. 20 2022 103 887

Bezeichnung:

Eine Vorrichtung zur Herstellung von Indol-Filmen zur Herstellung eines resistiven Schaltmoduls

> IPC: H01L 51/00

Inhaber/Inhaberin:

Banik, Hritinava, Agartala, Tripura, IN Bhattacharjee, Debajyoti, Prof., Agartala, Tripura, IN Deb. Barnali, Agartala, Tripura, IN Hussain, Syed Arshad, Dr., Suryamaninagar, Tripura, IN Majumdar, Swapan, Prof., Agartala, Tripura, IN Paul, Pabitra Kumar, Prof., Kolkata, IN Sarkar, Surajit, Agartala, Tripura, IN Suklabaidya, Sudip, Agartala, Tripura, IN

> Tag der Anmeldung: 11.07.2022

> Tag der Eintragung: 16.08.2022

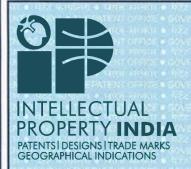
Die Präsidentin des Deutschen Patent- und Markenamts

Cornelia Rudloff-Schäffer

Comelia 12-duty-1dates

München, 16.08.2022







भारत सरकार GOVERNMENT OF INDIA पेटेंट कार्यालय THE PATENT OFFICE पेटेंट प्रमाणपत्र PATENT CERTIFICATE (Rule 74 of The Patents Rules) क्रमांक : 033121219

SL No :



पेटेंट सं. / Patent No. : 404895

आवेदन सं. / Application No. : 1328/KOL/2013

फाइल करने की तारीख / Date of Filing : 25/11/2013

पेटेंटी / Patentee : West Bengal University of Technology

प्रमाणित किया जाता है कि पेटेंटी को, उपरोक्त आवेदन में यथाप्रकटित METHOD OF IMPROVING ELEMENTAL AND NUTRITIONAL CONTENT OF PLANT SEEDS USING BACILLUS STRAIN MCC0008 AS A BIOFERTILIZER नामक आविष्कार के लिए, पेटेंट अधिनियम, 1970 के उपबंधों के अनुसार आज तारीख नवम्बर 2013 के पच्चीसवें दिन से बीस वर्ष की अविध के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled METHOD OF IMPROVING ELEMENTAL AND NUTRITIONAL CONTENT OF PLANT SEEDS USING BACILLUS STRAIN MCC0008 AS A BIOFERTILIZER as disclosed in the above mentioned application for the term of 20 years from the 25th day of November 2013 in accordance with the provisions of the Patents Act,1970.

ROPERTY INDIA IS I DESIGNS FIRADE MARKS

अनुदान की तारीख Date of Grant:

29/08/2022

Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, नवम्बर 2015 के पच्चीसवें दिन को और उसके पश्चात प्रत्येक वर्ष मे उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 25th day of November 2015 and on the same day in every year thereafter.

FORM 1 THE PATENTS ACT 1970 (39 OF 1970)

&

The Patents 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:

1. APPLICANT Name	Nationality	Address	
West Bengal University of Technology	Indian	BF-142, Sector 1, Salt Lake, Kolkata-709064, India.	
2. INVENTOR (S)			
Name	Nationality	Address	
RAY CHAUDHURI, Shaon	Indian	West Bengal University of Technology, BF-142, Sector 1, Salt Lake, Kolkata-700064, India.	
THAKUR, Ashoke Ranjan	Indian	Flat A-1, Vidya Sagar Niketan, Salt Lake, Kolkata-700066, India.	

3. TITLE OF THE INVENTION

METHOD OF IMPROVING ELEMENTAL AND NUTRITIONAL CONTENT OF PLANT SEEDS USING BACILLUS STRAIN MCC0008 AS A MOFERTILIZER

4. ADDRESS FOR CORRESPONDENCE OF APPLICANT / AUTHORIZED PATENT AGENT IN INDIA

Telephone No.: 0120-2342010/3104849

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Tarun Khurana [INPA-1325] and Meenakshi [INPA-1609] Khurana & Khurana, Advocates and IP Attorneys IFAIA Center, S/20-22, Greater Noida Shopping Plaza, UPSIDC, Site-IV, Plot No. 7/2, Kasna Road, Greater Noida, E-mail: tarun@khuranaandkhurana.com

5. PRIORITY PARTICULARS OF THE APPLICATION (S) FILED IN CONVENTION COUNTRY

Country	Application Number	Filing Date	Name of the Applicant	Title of the Invention
-	<u>-</u>	-	-	-

6. PARTICULARS FOR FILING PATENT COOPERATION TREATY (PCT) NATIONAL PHASE

International application number

N.A.

9. DECLARATIONS:

201308, India

(i) Declaration by the Inventor(s)

We, the above named inventor(s) are the true & first inventor(s) for this invention and declare that the applicant(s) herein is our assignee.

1. (a) Date: 25th November 2013

(b) Signature (s): Sharn Ray Chauethuri
(c) Name(s): RAY CHAUDHURI, Shaon

2. (a) Date: 25th November 2013

(b) Signature (s): AR Talahan

(c) Name(s): THAKUR, Ashoke Ranjan

(iii) Declaration by the applicant (s):

I/We, the applicant(s) hereby declare(s) that:

- o We are in possession of the above mentioned invention.
- o The Provisional specification relating to the invention is filed with this application
- o There is no lawful ground of objection to the grant of the Patent to me/us.
- oI am/We are the assignee or legal representative of true & first inventors.

10. Following are the attachments with the application:

(a) Provisional specification, Form 2 (Pages including I

Drawing Sheets)

- (b) Statement and undertaking on Form 3
- (c) Declaration as to Inventorship Form 5
- (d) Fee of Rs.

/- in cash/cheque/bank draft bearing no.

We hereby declare that to the best of my/our knowledge, information and belief 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

day of

, 2013

Signature:
Name:

Tarun Khurana (INPA-1325)

Khurana & Khurana, Advocates and IP Attorneys

To,

The Controller of Patent

The Patent Office, at Kolkata