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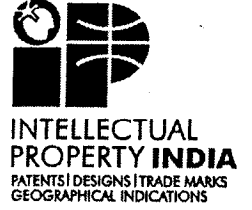
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[See Rule 22(1)]
RECEIPT



Docket No 130317

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To
Anuj Raturi

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Gyananand Bhawan, Kalinka Vihar, Lane
No. 3, Majrimafi, IIP Mohkampur Kala-
248005, Dehradun, Uttarakhand, India

CBR Detail:

Sr. No.	Ref. No./Application No.	App. Number	Amount Paid	C.B.R. No.	Form Name	Remarks
1	202211066877	TEMP/E-1/77025/2022-DEL	1600	45426	FORM 1	A CONCRETE FLOOR POTHOLE REPAIR DEVICE
2	E-12/6195/2022/DEL	202211066877	2500	45426	FORM 9	---
3	E-106/7398/2022/DEL	202211066877	0	----	FORM28	---

TransactionID	Payment Mode	Challan Identification Number	Amount Paid	Head of A/C No
N-0001055887	Online Bank Transfer	2211220000505	4100.00	1475001020000001

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211066877 A

(19) INDIA

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(54) Title of the invention : A CONCRETE FLOOR POTHOLE REPAIR DEVICE

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(86) International Application No :NA
Filing Date :NA
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Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A concrete floor pothole repair device comprising: a device frame; a plurality device wheel; an image capturing unit configured to detect a pothole or crack over said surface; a microcontroller to activate the wheels and to move device frame at repair location; a concrete container configured to contain concrete mixture; a pump; an electronic valve configured to deposit the concrete mixture and; a plainer configured to plain the concrete deposit unto a smooth finish.

No. of Pages : 16 No. of Claims : 8

FORM 1 THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 APPLICATION FOR GRANT OF PATENT (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)	
				Application No.	
				Filing date:	
				Amount of Fee paid:	
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				Signature:	
1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (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 ()	Divisional ()	Patent of Addition ()
3A. APPLICANT(S)					
Name in Full		Nationality	Country of Residence	Address of the Applicant	
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3B. CATEGORY OF APPLICANT [Please tick (✓) at the appropriate category]					
Natural Person ()		Other than Natural Person			
		Small Entity ()	Startup ()	Educational Institution (✓)	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 inventor(s)					
Name in Full		Nationality	Country of Residence	Address of the Inventor	
Dr. Sanjeev Gill		Indian	India	Department of Civil Engineering, J B Institute of Technology, Dehradun.	

Manish Bhati	Indian	India	Department of Civil Engineering, J B Institute of Technology, Dehradun.		
Bhaskar Singhal	Indian	India	Department of Civil Engineering, J B Institute of Technology, Dehradun.		
5. TITLE OF THE INVENTION					
"A CONCRETE FLOOR POTHOLE REPAIR DEVICE"					
6. AUTHORISED REGISTERED PATENT AGENT(S)			IN/PA No.	IN/PA: 4266	
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			Fax No.	N/A	
			E-mail ID	anuj.mechanical19@gmail.com	
8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION					
Country	Application Number	Filing date	Name of the applicant	Title of the	IPC (as classified in the convention country)
Nil	Nil	Nil	Nil	Nil	Nil
9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)					
International application number			International filing date		
Nil			Nil		
10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION					
Original (first) application No.			Date of filing of original (first) application		
Nil			Nil		
11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT					
Main application/patent No.			Date of filing of main application		

12. DECLARATIONS

(i) Declaration by the inventor(s)

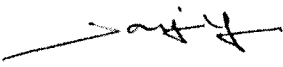


(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).

I/We, the above named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

Dated this: November 18, 2022.

Signature(s)

Name(s) of the signatory

		
Dr. Sanjeev Gill	Manish Bhati	Bhaskar Singhal

(ii) Declaration by the applicant(s) in the convention country

(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

Dated this: (Not applicable)

- a) Signature(s)
- b) Name(s) of the signatory

(iii) Declaration by the applicant(s)

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

- I am/ We are in possession of the above-mentioned invention.
- The 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 me/us before the grant of patent to me/us.~~
- There is no lawful ground of objection(s) to the grant of the Patent to me/us.
- ~~I am/we are the true & first inventor(s).~~
- I am/we are the assignee or legal representative of true & first inventor(s).
- ~~The application or each of the applications, particulars of which are given in Paragraph 8, was the first application in convention country/countries in respect of my/our invention(s).~~
- I/We claim the priority from the above mentioned application(s) filed in convention country/countries 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 I/We derive the title.
- My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph 9.
- ~~The application is divided out of my /our applications particulars of which is given in Paragraph 10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.~~
- ~~The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph 11.~~

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION
(a) Form 2

Item	Details	Fee	Remarks
Complete #	No. of pages: 12		(Total 16 pages)
No. of Claim(s)	No. of claims 08 and No. of pages: 02		
Abstract	No. of pages: 01		
No. of Drawing(s)	No. of drawings No. 01 of pages: 01		

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 the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

- (b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable.
- (c) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- (d) Statement and Undertaking on Form 3
- (e) Declaration of Inventorship on Form 5
- (f) Power of Authority Form 26
- (g) Request for Early Publication on Form 9
- (h) Request for Examination on Form 18

**Total fee - in cash/Banker's Cheque/Bank Draft Bearing NO..... Date.....on
..... Bank**

Dated this: November 18, 2022.

ON BEHALF OF APPLICANT

- a) Signature(s)
- b) Name(s) of the signatory

Signature: 

Name: Anuj Raturi [IN/PA: 4266]

(AGENT FOR THE APPLICANT)

To,
The Controller of Patents
The Patent Office, at New Delhi, Mumbai, Kolkata, Chennai

Note: -

- * Repeat boxes in case of more than one entry.
- * To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.
- * Tick (✓)/cross (x) whichever is applicable/not applicable in declaration in paragraph-12.
- * Name of the inventor and applicant should be given in full, family name in the beginning.
- * Strike out the portion which is/are not applicable.
- * For fee: See First Schedule;

FORM 2
THE PATENTS ACT, 1970
(39 of 1970)
&
The Patents Rules, 2003
COMPLETE SPECIFICATION
(See section 10 and rule 13)

Title: "A CONCRETE FLOOR POTHOLE REPAIR DEVICE"

Applicant(s):

Name: J B INSTITUTE OF TECHNOLOGY

Nationality: Indian

Address: NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN,
Uttarakhand, 248197

PREAMBLE TO THE DESCRIPTION:

The following specification particularly describes the invention and the manner in which it is to be performed.

FIELD OF THE INVENTION:

The present invention relates to a concrete floor pothole repair device. In particular, the concrete floor pothole repair device helps to repair the concrete floor cracks and pothole in a mechanized manner.

BACKGROUND OF THE INVENTION:

5 Background description includes information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

A number of different type of the assemblies and apparatus for recovering cracks and
10 potholes of concrete surfaces are available in the prior art. For example, the following prior arts are provided for their supportive teachings and are all incorporated by reference:

Prior art CN102627473B, discloses a device for repairing a concrete structure damaged by salt through two-step process, including a steel bar that acts as a cathode and is
15 disposed in concrete, an electrolytic tank whose mouth is in seal fit with a surface of the concrete, electrolyte disposed in the electrolytic groove, an anode immersed in the electrolyte and a direct current power supply for providing power to the cathode and the anode, wherein the electrolytic groove is provided with an electrolyte inlet, an electrolyte outlet and a pH indicator, a probe of the pH indicator penetrating through a
20 wall of the electrolytic groove and contacting with the electrolyte. The device provided in the invention is capable of timely replacement of electrolyte which is conducive to full discharge of chloride ions, and is capable of real-time monitoring of the ph value of the electrolyte, being applicable to concrete structures of various kinds of shapes; in addition, the device has the advantages of simple structure, convenient operation and

effective removal of the chloride ions in a concrete protective layer with the removal efficiency achieving about 60%; further, the device can raise the corrosion potential of a corroded steel bar, decrease corrosion rate, realize the repassivation and maximumly repair a concrete structure damaged by salt.

5 Another prior art US6497531B2, discloses a concrete curing and texturing machine includes a truss frame supporting a reservoir of curing fluid and drive members positioned at the ends of the truss frame for powering the machine longitudinally along a roadway being surfaced. A texturing carriage is mounted to the truss frame and arranged to longitudinally move back and forth along the truss frame. A truss member
10 is mounted rearwardly of the truss frame and includes a sprayboom carriage unit which moves longitudinally move back and forth along the truss member. The sprayboom carriage unit supports a sprayboom having a plurality of nozzles operatively connected to the liquid reservoir.

Yet another prior art CN1752382A, discloses an electrochemical deposition method to
15 repair concrete crack. Said method includes the following steps: adopting $ZnSO_4$ or $MgSO_4$ solution, its concentration is 0.05 mol/L-0.25 mol/L, soaking concrete with crack, applying electric current, making current density of concrete surface be 0.25 A/sq.m-1A/sq.m, changing electric deposition solution once every 5 days to make concentration of solution retain constant, changing solution for 5-6 times. Said
20 repairing equipment mainly uses concrete with crack, electric deposition solution, insoluble anode, wire and power supply to form a series-connected loop.

Conventionally, there are various device and system available for repairing a concrete surface. However, these devices and systems are not capable of detecting a pothole or crack over a concrete surface and not configured to repair the pothole or crack in a
25 mechanized manner without requiring any manual efforts.

In order to overcome the aforementioned drawbacks, there exists a need to develop a device that is capable of detecting pothole or crack over a surface and repair it as means of restoring the surface in a mechanized manner.

OBJECTS OF THE INVENTION:

5 Some of the objects of the present invention, which at least one embodiment herein satisfy are as listed herein below.

The main object of the present invention is to overcome the disadvantages of the prior art.

10 Another object of the present invention is to provide a device capable to identify pothole or crack over the concrete surface and configured to repair it with the required amount of concrete.

Yet another object of the present invention is to apply a cement adhesive in proximity of the crack while filling the adhesive to provide a crack free joint.

15 Yet another object of the present invention is to provide a precision crack filling of the concrete surface.

The foregoing and other objects, features, and advantages of the present invention will become readily apparent upon further review of the following detailed description of the preferred embodiment as illustrated in the accompanying drawings.

SUMMARY OF THE INVENTION:

20 The present invention relates to a concrete floor pothole repair device that automatically identify a pothole over a concrete surface and repair the surface. Furthermore, the proposed device provides a crack free repair of the concrete surface using an adhesive before filling of repair concrete.

25 According to an embodiment of the present invention, a concrete floor pothole repair device comprising, a device frame having a bottom and side portion associated with

the device placed by an operator over a surface, device wheel attached at first portion of the body to allow maneuvering of the body over the surface, an IOT enabled image capturing unit coupled with the body to capture the image of concrete floor to identify the pothole or crack over the surface and signal the data to a microcontroller (10) that
5 activates the wheels to move the body over the pothole or crack, a container filled with concrete material installed within the body, wherein a pump is installed within the container activated by the microcontroller (10) to deposit the adhesive over the crack via an electronic valve integrated within the container in accordance with depth and size of the pothole or crack as detected by the image capturing unit, a plainer wrapped
10 with a cement adhesive attached at first portion of the body, wherein a pair of pneumatically powered clamps attached with the body that are activated by the microcontroller (10) to pick cement adhesive from the rollers and apply the cement adhesive over the surface adjacent to the crack present over the surface, an compactor attached at second portion of the body via a motorized hinge, wherein the
15 microcontroller (10) activates the hinge along with the compactor to allow the compactor plate for levelling of the concrete deposit within the pothole or crack while moving the device over the pothole or crack, a hot air blower installed at second portion of the device to blow hot air over the crack as means of drying the concrete in an effective manner for providing a fast drying of the deposited concrete.

20 While the invention has been described and shown with particular reference to the preferred embodiment, it will be apparent that variations might be possible that would fall within the scope of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS:

25 These and other features, aspects, and advantages of the present invention will become better understood with regard to the following description, appended claims, and accompanying drawings where:

FIG. 1 depicts an exemplary view of a concrete floor pothole repair device.

DETAILED DESCRIPTION OF THE INVENTION:

In the following detailed description, reference is made to the accompanying drawings which form a part hereof, and in which is shown by way of illustration specific
5 embodiments in which the invention may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that the embodiments may be combined, or that other embodiments may be utilized and that structural and logical changes may be made without departing from the spirit and scope of the present invention. The following
10 detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is defined by the appended claims and their equivalents.

The present invention is described in brief with reference to the accompanying drawings. Now, refer in more detail to the exemplary drawings for the purposes of illustrating non-limiting embodiments of the present invention.

15 As used herein, the term "comprising" and its derivatives including "comprises" and "comprise" include each of the stated integers or elements but does not exclude the inclusion of one or more further integers or elements.

As used herein, the singular forms "a", "an", and "the" include plural referents unless the context clearly dictates otherwise. For example, reference to "a device"
20 encompasses a single device as well as two or more devices, and the like.

As used herein, the terms "for example", "like", "such as", or "including" are meant to introduce examples that further clarify more general subject matter. Unless otherwise specified, these examples are provided only as an aid for understanding the applications illustrated in the present disclosure, and are not meant to be limiting in any fashion.

As used herein, the terms "may", "can", "could", or "might" be included or have a characteristic, that particular component or feature is not required to be included or have the characteristic.

Exemplary embodiments will now be described more fully hereinafter with reference
5 to the accompanying drawings, in which exemplary embodiments are shown. These
exemplary embodiments are provided only for illustrative purposes and so that this
disclosure will be thorough and complete and will fully convey the scope of the
invention to those of ordinary skill in the art. The invention disclosed may, however,
be embodied in many different forms and should not be construed as limited to the
10 embodiments set forth herein.

Various modifications will be readily apparent to persons skilled in the art. The general
principles defined herein may be applied to other embodiments and applications
without departing from the spirit and scope of the invention. Moreover, all statements
herein reciting embodiments of the invention, as well as specific examples thereof, are
15 intended to encompass both structural and functional equivalents thereof. Additionally,
it is intended that such equivalents include both currently known equivalents as well as
equivalents developed in the future (i.e., any elements developed that perform the same
function, regardless of structure). Also, the terminology and phraseology used is for the
purpose of describing exemplary embodiments and should not be considered limiting.
20 Thus, the present invention is to be accorded the widest scope encompassing numerous
alternatives, modifications and equivalents consistent with the principles and features
disclosed. For purpose of clarity, details relating to technical material that is known in
the technical fields related to the invention have not been described in detail so as not
to unnecessarily obscure the present invention.

Thus, for example, it will be appreciated by those of ordinary skill in the art that the diagrams, schematics, illustrations, and the like represent conceptual views or processes illustrating systems and methods embodying this invention. The functions of the various elements shown in the figures may be provided through the use of dedicated hardware as well as hardware capable of executing associated software. Similarly, any switches shown in the figures are conceptual only. Their function may be carried out through the operation of program logic, through dedicated logic, through the interaction of program control and dedicated logic, or even manually, the particular technique being selectable by the entity implementing this invention. Those of ordinary skill in the art further understand that the exemplary hardware, software, processes, methods, and/or operating systems described herein are for illustrative purposes and, thus, are not intended to be limited to any particular named element.

Each of the appended claims defines a separate invention, which for infringement purposes is recognized as including equivalents to the various elements or limitations specified in the claims. Depending on the context, all references below to the "invention" may in some cases refer to certain specific embodiments only. In other cases, it will be recognized that references to the "invention" will refer to subject matter recited in one or more, but not necessarily all, of the claims.

References will now be made in detail to the exemplary embodiment of the present disclosure. Before describing the detailed embodiments that are in accordance with the present disclosure, it should be observed that the embodiments reside primarily in combinations arrangement of the system according to an embodiment herein and as exemplified in FIG. 1.

Referring to FIG.1 wherein, FIG. 1 depicts an exemplary view of a concrete floor pothole repair device comprising, a device frame (1) having a first and second portion

(2 & 3) associated with the device, an IOT enabled image capturing unit (4) mounted over the device frame (1), a plurality device wheel (5) attached at first portion of the device frame (1), a plainer (6), an compactor (8) attached at second portion (3) of the device frame (1) via a ram (7), a hot air blower (9) installed at second portion (3) of the device frame (1) and a microcontroller (10) attached with the device frame (1).
5

The device of present invention comprising a device frame (1) having a first 2 and second portions 3 that are bottom and side portions respectively. The device frame (1) is placed by an operator over a defective concrete surface. A plurality device wheel (5) are attached at the first portion 2 of the device frame (1). A motor is paired with each
10 of the wheels 5 that is activated by the microcontroller (10) to provide movement to the device frame (1) for maneuvering over the surface. The microcontroller (10) is a unit that is capable of controlling operation of various components simultaneously.

The microcontroller (10) is programmable in accordance with the task to be performed by it. An IOT enabled image capturing unit (4) is mounted over the device frame (1) to
15 capture multiple images of the surface. The image capturing unit (4) executes image processing tasks to retrieve the desired data. The image processing is finished in multifarious steps. At first pre-processing of the captured image is done, pre-processing of the image is done in order to enhance the data of the image by suppressing the unwanted distortions and also enhancing some image features which are necessary
20 for further processing.

Once the image is pre-processed a morphological processing is done. In the morphological processing, the useful image or component of the image that is useful is extracted. The AI based camera (4) captures multiple images and among these multiple images, the useful image or the image depicting pothole or crack is extracted. The

features extracted from different types of images are then matched with a pre-stored defined values.

The comparison between the extracted image and the pre-stored set of values is done based on depth, size, and pattern. The features of pattern, depth and size of the captured image should be similar to the stored data for further processing. Herein, the image capturing unit (4) detect a crack or pothole over the surface and also analyze its size and depth. The image capturing unit (4) transmits acquired data to the microcontroller (10) that analyzes the received data and activates a pneumatically powered lever to pick a cement adhesive from a plainer (6) attached at first portion (2) of the device frame (1).

The guide (11) are powered with a pneumatic arrangement that includes a pneumatic compressor, rod, cylinder and an electronic valve that are activated by the microcontroller (10) to extend/retract the guide (11). A motor is paired with the clamp to provide a linear reciprocating motion to the clamp as means of picking the cement adhesive from the rollers (6) and stick that cement adhesive over the surface over each adjacent side of the crack. The rollers (6) are attached with each other via a linear slider.

The linear slider contains multiple motorized wheels (5) that are activated by the microcontroller (10) to provide a linear motion to the slider as means of altering the distance between the rollers (6) in accordance with the width of the crack detected by the image capturing unit (4). The microcontroller (10) activates the wheels (5) to move the device frame (1) along with the length of the crack to allow the guide (11) to apply the cement adhesive throughout the length of the crack for eliminating the chances of spillage of an adhesive over the surface while filling the crack with that adhesive. Upon

applying the cement adhesive, the microcontroller (10) activates a pump installed with a container attached at first portion (2) of the device frame (1).

The container is filled with an adhesive material. Upon activation, the pump deposits the adhesive material over the crack as means of filling the crack in accordance with the size and depth of the crack as detected by the image capturing unit (4). upon filling the crack via adhesive material, the microcontroller (10) activates a motorized hinge to move a compactor (8) attached at second portion of the device frame (1). a motor is paired with the motorized hinge that is activated by the microcontroller (10) to provide an oscillating motion to the hinge as means of moving the compactor near to the repair surface.

The compactor is powered with the pneumatic arrangement that allow the compactor to move to and fro as per requirement. The microcontroller (10) activates the compactor plate (8) to extend over the crack and simultaneously, the microcontroller (10) activates the wheels (5) to move over the crack as means of performing levelling of the adhesive filled within the crack. While levelling the adhesive, the microcontroller (10) activates a hot air blower (9) installed over the device frame (1) wherein, said air blower (9) contains a motorized fan and a heating element.

A motor is paired with the motorized fan that is activated by the microcontroller (10) to provide a rotational motion to the fan as means of blowing a hot air over the adhesive filled within the crack as means of drying it. Upon drying the adhesive, the microcontroller (10) activates a hot air blower (10) installed at first portion (2) of the device frame (1).

ADVANTAGES OF THE INVENTION:

The main advantage of the present invention is to overcome the disadvantages of the prior art.

Another advantage of the present invention is to provide a device capable to identify pothole or crack over the concrete surface and configured to repair it with the required
5 amount of concrete.

Yet another advantage of the present invention is to apply a cement adhesive in proximity of the crack while filling the adhesive to provide a crack free joint.

Yet another advantage of the present invention is to provide a precision crack filling of the concrete surface.

10 Still another advantage of the present invention is to provide a device which is cost effective and low in maintenance.

Although the field of the invention has been described herein with limited reference to specific embodiments, this description is not meant to be construed in a limiting sense. Various modifications of the disclosed embodiments, as well as alternate embodiments
15 of the invention, will become apparent to persons skilled in the art upon reference to the description of the invention.

Dated this: November 18, 2022.

ON BEHALF OF APPLICANT

Signature:



Name: Anuj Raturi [IN/PA: 4266]

(AGENT FOR THE APPLICANT)

20

We Claim:

1. A concrete floor pothole repair device, comprising:
 - a device frame (1);
 - an image capturing unit (4);
 - 5 a concrete container;
 - a plainer (6);
 - an compactor (8); and
 - a hot air blower (9).
2. The concrete floor pothole repair device as claimed in claim 1, wherein said
10 device frame (1) configured to provide the structure and mount the other
components of said device.
3. The concrete floor pothole repair device as claimed in claim 1, wherein said
microcontroller (10) configured to control said device at said repair location.
4. The concrete floor pothole repair device as claimed in claim 1, wherein a hot
15 air blower (10) configured to dry the deposited concrete mixture.
5. The concrete floor pothole repair device as claimed in claim 1, wherein an
electronic valve configured to deposit the concrete mixture at said repair
surface.
6. The concrete floor pothole repair device as claimed in claim 1, wherein a
20 vacuum pump paired with a receptacle attached with said device frame (1) that
is activated by said microcontroller (10) to draw said loosen cement adhesive
inside said concrete container.

- 5
7. The concrete floor pothole repair device as claimed in claim 1, wherein a plainer (6) configured to plain the concrete deposit unto a smooth finish.
 8. The concrete floor pothole repair device as claimed in claim 1, wherein a compactor (8) configured to compact the concrete deposited into the detected pothole or crack.

Dated this: November 18, 2022.

ON BEHALF OF APPLICANT

Signature:



Name: Anuj Raturi [IN/PA: 4266]

(AGENT FOR THE APPLICANT)


ABSTRACT

Title: "A CONCRETE FLOOR POTHOLE REPAIR DEVICE"

A concrete floor pothole repair device comprising: a device frame; a plurality device wheel; an image capturing unit configured to detect a pothole or crack over said surface; a microcontroller to activate the wheels and to move device frame at repair location; a concrete container configured to contain concrete mixture; a pump; an electronic valve configured to deposit the concrete mixture and; a plainer configured to plain the concrete deposit unto a smooth finish.

Dated this: November 18, 2022.

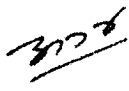
ON BEHALF OF APPLICANT

Signature: 

Name: Anuj Raturi [IN/PA: 4266]

(AGENT FOR THE APPLICANT)

FORM 3
THE PATENTS ACT,
1970 (39 of 1970)
and
THE PATENTS RULES, 2003
STATEMENT AND UNDERTAKING UNDER
SECTION 8
(See section 8; Rule 12)

1. Name & address of the applicant(s).	<p>We, J B INSTITUTE OF TECHNOLOGY of the address NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, Uttarakhand, 248197, India hereby declare:</p> <p>(i) that we who have made this Application No. 202211_____dated 18/11/2022 alone, made for the same/ substantially same invention, application(s) for patent in the other countries, the particulars of which are given below:</p>				
Name of the Country	Date of Application	Application No.	Status of Application	Date of publication	Date of Grant
Details attached as ANNEXURE					
2. Name of the assignee	<p>(ii) that the rights in the application(s) has/have been assigned to J B INSTITUTE OF TECHNOLOGY that we undertake that up to the date of grant of the patent by the Controller, we would keep him informed in writing the details regarding corresponding applications for patents filed outside India within six months from the date of filing of such application.</p> <p>Dated this: November 18, 2022.</p>				
3. To be signed by the applicant or his authorized registered patent agent.	<p>Signature: </p> <p>Name: Anuj Raturi [IN/PA: 4266]</p> <p>(AGENT FOR THE APPLICANT)</p>				
4. Name of the natural person who has signed.	Anuj Raturi				
	<p>To, The Controller of Patents, The Patent Office, Delhi</p>				
Note.- Strike out whichever is not applicable:					

ANNEXURE TO FORM-3

Title of Invention: "A CONCRETE FLOOR POTHOLE REPAIR DEVICE"

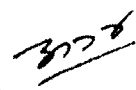
Application No. 202211 _____ Filed on: 18/11/2022

Applicant(s): J B INSTITUTE OF TECHNOLOGY

Country	Application date	Application No.	Status of the Application	Date of Pub. / Pub. Number	Date of grant / Grant Number
N/A	N/A	N/A	N/A	N/A	N/A

*N/A (Not applicable)

Dated this: November 18, 2022.

Signature: 

Name: Anuj Raturi [IN/PA: 4266]

(AGENT FOR THE APPLICANT)

FORM 5

**THE PATENTS ACT, 1970
(39 of 1970)
&
THE PATENT RULES, 2003
DECLARATION AS TO INVENTORSHIP**

[See Section 10(6) and Rule 13(6)]

We, **J B INSTITUTE OF TECHNOLOGY** having institution address at **NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, UTTARAKHAND, 248197, INDIA**, hereby declare that the true and first inventors of the invention disclosed in the complete specification filed in pursuance of our Application Titled "**A CONCRETE FLOOR POTHOLE REPAIR DEVICE**" are:

Name: Dr. Sanjeev Gill

Nationality: Indian

Address: Department of Civil Engineering, J B Institute of Technology, Dehradun.

Name: Manish Bhati

Nationality: Indian

Address: Department of Civil Engineering, J B Institute of Technology, Dehradun.

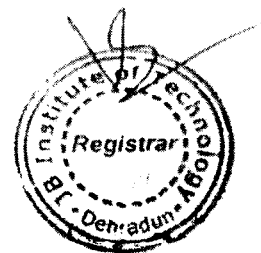
Name: Bhaskar Singhal

Nationality: Indian

Address: Department of Civil Engineering, J B Institute of Technology, Dehradun.

Dated this: November 18, 2022.

Signature & Name:



Registrar

J B Institute of Technology

To,
The Controller of Patents
The Patent Office, at Delhi.

FORM 9

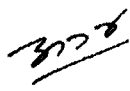
The Patent ACT, 1970 (39 of 1970)

&

The Patents Rule, 2003

Request for Publication

[See section 11A (2), Rule 24A]

1. Name, address and nationality of the applicants:	We, J B INSTITUTE OF TECHNOLOGY Address: NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, Uttarakhand, 248197 India. Nationality: Indian
2. To be signed by the applicant or his authorized registered patent agent	Hereby request for early publication of our application Titled: "A CONCRETE FLOOR POTHOLE REPAIR DEVICE" filed herewith under section 11A(2) of the Act.
3. Name of the natural person who signed. Dated: November 18, 2022.	Signature:  Name: Anuj Raturi [IN/PA: 4266] (AGENT FOR THE APPLICANT)

To,
The Controller of Patents
The Patent Office at, New Delhi.

FORM 28

THE PATENT ACT, 1970 (39 OF 1970)

&

THE PATENTS RULES, 2003

TO BE SUBMITTED BY AN EDUCATIONAL INSTITUTION

[See rules 2 (ca) and 7]

We, **J B INSTITUTE OF TECHNOLOGY** having Nationality of India of the address- **NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, Uttarakhand, 248197, India.** Applicant in respect of the patent application titled "**A CONCRETE FLOOR POTHOLE REPAIR DEVICE**" & application no.202211 _____,

hereby declare that we are an educational institution in accordance with rule 2(ca) and submit the following document(s) as proof;

i) Certificate/proof of university recognized under/Central/State government.

The information provided herein is correct to the best of our knowledge and belief.

Dated this: November 18, 2022.

Signature: 

Name: Anuj Raturi [IN/PA: 4266]

(AGENT FOR THE APPLICANT)

To,

The Controller of Patents,

The Patent Office, at Delhi.

FORM 28

THE PATENT ACT, 1970 (39 OF 1970)

&

THE PATENTS RULES, 2003

TO BE SUBMITTED BY AN EDUCATIONAL INSTITUTION

[See rules 2 (ca) and 7]

We, **J B INSTITUTE OF TECHNOLOGY** having Nationality of India of the address- **NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, Uttarakhand, 248197, India**. Applicant in respect of the patent application titled "**A CONCRETE FLOOR POTHOLE REPAIR DEVICE**" & application no.202211 _____,

hereby declare that we are an educational institution in accordance with rule 2(ca) and submit the following document(s) as proof;

i) Certificate/proof of university recognized under/Central/State government.

The information provided herein is correct to the best of our knowledge and belief.

Dated this: November 18, 2022.

Signature: 

Name: Anuj Raturi [IN/PA: 4266]

(AGENT FOR THE APPLICANT)

To,

The Controller of Patents,

The Patent Office, at Delhi.

All India Council for Technical Education

(A Statutory body under Ministry of Education, Govt. of India)

Nelson Mandela Marg, Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org



APPROVAL PROCESS 2022-23

Extension of Approval (EOA)

F.No. Northern/1-10968838042/2022/EOA

Date: 29-Jul-2022

To,

The Secretary(Technical Education)
Govt. of Uttarakhand, Dehradun Sectt.,
4 Subhash Road, Dehradun-248001

Sub: Extension of Approval for the Academic Year 2022-23

Ref: Application of the Institution for Extension of Approval for the Academic Year 2022-23

Sir/Madam,

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Institutions) Regulations, 2022 Notified on 4th February, 2022 and amended on 24th February 2022 and norms standards, procedures and conditions prescribed by the Council from time to time, I am directed to convey the approval to

Permanent Id	1-8461364	Application Id	1-10968838042
Name of the Institution	J B INSTITUTE OF TECHNOLOGY	Name of the Society/Trust	JAI BHAGWAN EDUCATIONAL SOCIETY
Institution Address	NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, DEHRADUN, DEHRADUN, Uttarakhand, 248197	Society/Trust Address	17 MANDIR MARG, VASANT VIHAR ENCLAVE DEHARDUN, DEHRADUN, DEHRA DUN, Uttarakhand, 248001
Institution Type	Private-Self Financing	Region	Northern
Year of Establishment	2009		

Opted for Introduction of New Program/Level	Yes	Introduction of Program/Level Approved or Not	Approved
--	-----	--	----------

To conduct following Courses with the Intake indicated below for the Academic Year 2022-23

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2021-22	Intake Approved for 2022-23	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
DIPLOMA	ENGINEERING AND TECHNOLOGY	CIVIL ENGINEERING	Directorate Of Technical Education, Srinagar(Garhwal)	60	60	No	No
DIPLOMA	ENGINEERING AND TECHNOLOGY	ELECTRICAL ENGINEERING	Directorate Of Technical Education, Srinagar(Garhwal)	60	60	No	No

Level	Program	Course	Affiliating Body (University /Body)	Intake Approved for 2021-22	Intake Approved for 2022-23	NRI Approval Status	FN / Gulf quota/ OCI/ Approval Status
DIPLOMA	ENGINEERING AND TECHNOLOGY	MECHANICAL ENGINEERING	Directorate Of Technical Education, Srinagar(Garhwal)	60	60	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING	Uttarakhand Technical University, Dehradun	60	30	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	CIVIL ENGINEERING	Uttarakhand Technical University, Dehradun	60	60	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER SCIENCE & ENGINEERING	Uttarakhand Technical University, Dehradun	60	90	NA	NA
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRICAL ENGINEERING	Uttarakhand Technical University, Dehradun	30	30	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	ELECTRONICS & COMMUNICATION ENGG	Uttarakhand Technical University, Dehradun	30	30	No	No
UNDER GRADUATE	ENGINEERING AND TECHNOLOGY	MECHANICAL ENGINEERING	Uttarakhand Technical University, Dehradun	60	60	No	No
POST GRADUATE	ENGINEERING AND TECHNOLOGY	COMPUTER SCIENCE & ENGINEERING	Uttarakhand Technical University, Dehradun	24	24	No	No
POST GRADUATE	MANAGEMENT	MBA	Uttarakhand Technical University, Dehradun	0	60##	No	No

Approved New Course(s)

It is mandatory to comply with all the essential requirements as given in APH 2022-23 (Appendix 6)

Important Instructions

1. The State Government/ UT/ Directorate of Technical Education/ Directorate of Medical Education shall ensure that 10% of reservation for Economically Weaker Section (EWS) as per the reservation policy for admission, operational from the Academic year 2019-20 is implemented without affecting the reservation percentages of SC/ ST/ OBC (NCL)/ General. However, this would not be applicable in the case of Minority Institutions referred to the Clause (1) of Article 30 of Constitution of India. Such Institution shall be permitted to increase in annual permitted strength over a maximum period of two years.
2. The Institution offering courses earlier in the Regular Shift, First Shift, Second Shift/Part Time are now amalgamated as total intake and shall have to fulfil all facilities such as Infrastructure, Faculty and other requirements as per the norms specified in the Approval Process Handbook 2022-23 for the Total Approved Intake. Further, the Institutions Deemed to be Universities/ Institutions having Accreditation/ Autonomy status shall have to maintain the Faculty: Student ratio as specified in the Approval Process Handbook. All such Institutions/ Universities shall have to create the necessary Faculty, Infrastructure and other facilities WITHIN 2 YEARS to fulfil the norms based on the Affidavit submitted to AICTE beginning with the Academic Year 2022-23
3. Strict compliance of Anti-Ragging Regulation, Establishment of Committee for SC/ ST, Establishment of Internal Complaint Committee (ICC), Establishment of Online Grievance Redressal Mechanism, Barrier Free Built Environment for disabled and elderly persons, Fire and Safety Certificate should be maintained as Approval Process Handbook and provisions made in AICTE Regulation notified from time to time.
4. In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Pharmacy Institute: In compliance with the order dated 05.03.2020 passed by the Hon'ble Supreme Court of India in Transferred Petitions (CIVIL) No 87-101 of 2014, for the existing institutions offering courses in Pharmacy Programme, approval of Pharmacy Council of India (PCI) is mandatory and AICTE approval is NOT required. The requirements for running the Programme (Diploma / UG / PG) such as Land & Build-up Area, Student-faculty ratio, Intake etc. will be as per the respective regulatory body (PCI). In case of any inconsistency in the course name and intake for EoA issued by AICTE and the approval by PCI, the approval of PCI shall prevail.

Architecture Institute: In compliance with the order dated 08.11.2019 passed by the Hon'ble Supreme Court of Indian CA No.364/ 2005, for the existing Institutions offering Courses in Architecture Programme, approval by the Council of Architecture (CoA) is mandatory and AICTE approval is NOT required. The requirements for running the Programme (Diploma / UG / PG) such as Land & Build-up Area, Student-faculty ratio, Intake etc. will be as per respective regulatory body (CoA). In case of any inconsistency in the course name and intake for EoA issued by AICTE and the approval by CoA, the approval of CoA shall prevail.

Deemed to be University: Institutions Deemed to be Universities (Running Technical Education Programmes), it is mandatory to have AICTE approval from the Academic Year 2018-19 in compliance of the Hon'ble Supreme Court Order dated 03-11-2017 passed in CA No.17869- 17870 /2017.

**Prof.Rajive Kumar
Member Secretary, AICTE**

Copy to:

1. **The Director Of Technical Education**, Uttarakhand**
2. **The Registrar**,
Directorate Of Technical Education, Srinagar(Garhwal)**
3. **The Principal / Director,
J B INSTITUTE OF TECHNOLOGY
Nh-72, Village Shankarpur, Chakrata Road, Dehradun,
Dehradun,Dehradun,
Uttarakhand,248197**
4. **The Secretary / Chairman,
17 MANDIR MARG, VASANT VIHAR ENCLAVE
DEHARDUN
DEHRADUN,DEHRADUN**

Uttarakhand,248001

5. **The Regional Officer,**
All India Council for Technical Education
Govt. Polytechnic Campus
Adjoining Directorate of Technical Education
Vikas Nagar, Kanpur-208 002, Uttar Pradesh

6. **Guard File(AICTE)**

Note: Validity of the Course details may be verified at <http://www.aicte-india.org/>

** Individual Approval letter copy will not be communicated through Post/Email. However, consolidated list of Approved Institutions(bulk) will be shared through official Email Address to the concerned Authorities mentioned above.

This is a computer generated Statement. No signature Required



प्रेषक,

डा० रंजीत कुमार सिन्हा
सचिव श्री राज्यपाल/कुलाधिपति।

सेवा में,

कुलपति,
वीर माधो सिंह भण्डारी उत्तराखण्ड प्रौद्योगिकी विश्वविद्यालय,
सुन्दरगला, देहरादून।

राज्यपाल/कुलाधिपति सचिवालय उत्तराखण्ड :

देहरादून : दिनांक : 3 अक्टूबर, 2022

महोदय,

कृपया विश्वविद्यालय के पत्र सं०-2052 व 2055, दिनांक 07-01-2022 का सन्दर्भ ग्रहण करने का कष्ट करें।

2. उपरोक्त सन्दर्भ के सम्बन्ध में मुझे यह कहने का निदेश हुआ है कि नियामक संस्था, निरीक्षण मण्डल, कुलपति व कुलसचिव, जी०मा०सि०भ० उत्तराखण्ड प्रौद्योगिकी विश्वविद्यालय द्वारा प्रदत्त सस्तुति के दृष्टिगत विश्वविद्यालय अधिनियम, 2005 (यथा अद्यतन संशोधित) की धारा-24(2) के अधीन निम्नवत् संस्थान को उसके सामुख वर्णित पाठ्यक्रम, सीटों एवं अवधि की अस्थाई सम्बद्धता विस्तारण हेतु छात्रहित में मा० कुलाधिपति द्वारा पूर्वानुमोदन निम्नवत् उपबन्धों के साथ प्रदान किया गया है :-

संस्थान का नाम	पाठ्यक्रम	सीट संख्या प्रति सत्र	शैक्षिक सत्र
1	2	3	4
जे०डी० इस्टीट्यूट ऑफ टेक्नोलॉजी, चकराता रोड, देहरादून ग्राम-शंकरपुर,	बी०टेक० :- 1. Civil Engg. 2. Computer Science & Engg. 3. Electrical Engg. 4. Electronics & Communication Engg. 5. Mechanical Engg. 6. Artificial Intelligence and Machine Learning (New Course-1st Affiliation)	60 60 30 30 60 60	2021-22
	एम०टेक० :- 1. Computer Science & Engg.	24	

(1) विश्वविद्यालय द्वारा संस्थान की Annual Balance Sheet सम्बन्धी साक्ष्य की सत्यापित प्रति प्राप्त कर इस सचिवालय को उपलब्ध कराई जायेगी।

(2) प्राभूति राशि अपूर्ण है। अतः उत्तराखण्ड शासन द्वारा शासनादेश दिनांक 14 दिसम्बर, 2016 द्वारा तथा व्यवसायिक पाठ्यक्रमों हेतु प्राभूति राशि के सम्बन्ध में शासन स्तर पर लिये गये निर्णय का पूर्ण रूप से अनुपालन विश्वविद्यालय व संस्थान द्वारा किया जायेगा, उसके अनुपालन की सूचना से इस सचिवालय को भी अवगत कराया जायेगा।

(3) विश्वविद्यालय द्वारा छात्र/छात्राओं की गुणवत्ता और व्यवहारिक शिक्षा में सुधार के लिए क्या कदम उठाए गये हैं, इसकी सूचना व संस्थानों द्वारा छात्रों की प्रायोगिक शिक्षा और इंटर्नशिप/विजिट के लिए किन समूहों, विभागों एवं कंपनियों के साथ समझौता (Tie-up or MoU) किया गया है, तत्सम्बन्धी अभिलेख एक माह के भीतर अनिवार्य रूप से इस सचिवालय को प्रेषित करना सुनिश्चित करें। अन्यथा की स्थिति में संस्थान की सम्बद्धता निरस्त कर दी जाएगी साथ ही अग्रेत्तर सत्रों की सम्बद्धता के सम्बन्ध में कोई विचार नहीं किया जायेगा।

(4) विश्वविद्यालय संस्थान द्वारा सोसाइटी / ट्रस्ट पंजीकरण अधिनियम के अन्तर्गत निर्धारित Legal Obligation पूर्ण किये जाने के सम्बन्ध में राश्वर सक्षित आरथ्या एक माह के भीतर राज्यपाल सचिवालय को उपलब्ध कराया जाना सुनिश्चित किया जायेगा।

(5) यदि संस्थान द्वारा एक या एक से अधिक विश्वविद्यालय से पाठ्यक्रम की सम्बद्धता प्राप्त की गई हो तो संस्थान समस्त पाठ्यक्रमों की सम्बद्धता को एक साथ रखकर पाठ्यक्रमवार मानक पूर्ण किये जाने के सम्बन्ध में आरथ्या संस्थान द्वारा विश्वविद्यालय को उपलब्ध कराई जायेगी तथा संस्थान से प्राप्त आरथ्या का परीक्षण करते हुए विश्वविद्यालय द्वारा राज्यपाल सचिवालय को उपलब्ध कराई जायेगी।

(6) अग्रततर सत्रों के सम्बद्धता प्रस्ताव नियामक संस्था, विश्वविद्यालय एवं शासन द्वारा निश्चित मानकों के अनुरूप पूर्ण होने की दशा में ही स्वीकार किये जायेंगे अन्यथा की स्थिति में अपूर्ण प्रस्तावों पर विचार नहीं किया जायेगा, जिसका पूर्ण उत्तरदायित्व विश्वविद्यालय का होगा।

(7) विश्वविद्यालय, नियामक संस्था, विश्वविद्यालय व राज्य सरकार द्वारा निर्धारित सभी मानकों के पूर्ण होने की दशा में ही कार्यपरिषद के अनुमोदन से विहित शर्तों/उपबन्धों के अधीन अस्थाई सम्बद्धता विस्तारण के आदेश निर्गत कर व तत्सम्बन्धी कार्यवाही की सूचना मा० कुलाधिपति महोदय के अवगतार्थ उपलब्ध कराये।

तदनुसार अग्रततर कार्यवाही सुनिश्चित करें।

भवदीय,

(डा० रंजीत कुमार सिन्हा)
सचिव श्री राज्यपाल/कुलाधिपति।

संख्या-2852(1)/जीएसओ(शिक्षा)/A4-48(P-II)/2019 तद्दिनांकित।

प्रतिलिपि निम्नलिखित को सूचनार्थ एवं आवश्यक कार्रवाई हेतु प्रेषित -

1. सचिव, तकनीकी शिक्षा विभाग, उत्तराखण्ड शासन।
2. प्राचार्य/निदेशक, संबंधित संस्थान।
3. कम्प्यूटर प्रकोष्ठ/गार्ड फाईल हेतु।

आज्ञा से

(स्वाति एस० मदीरिया)
अपर सचिव श्री राज्यपाल/कुलाधिपति।



सत्यमेव जयते

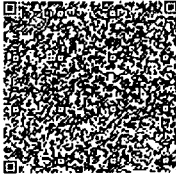
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FORM 26
THE PATENTS ACT, 1970
(39 OF 1970)

&

The Patent Rules, 2003

FORM FOR AUTHORIZATION OF A PATENT AGENT/ OR ANY PERSON IN A MATTER OR
PROCEEDING UNDER THE ACT
[See Section 127 and 132; Rule 135]

Power of Attorney by J B INSTITUTE OF TECHNOLOGY, of the address- NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, Uttarakhand, 248197, India; hereby authorize- Mr. Anuj Raturi [Registered Indian Patent Agent, (IN/PA:4266)] & Adv. Ram Chandra Joshi [Reg. No.: U.A. 2638/04, U.P. 2763/94 (Advocate & Notary)] having office address, as Gyananand Bhawan, Kalinka Vihar, Majrimafi, Lane No.3, IIP Mohkampur Kala-248005, Dehradun, Uttarakhand, India.

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FORM 26
THE PATENTS ACT 1970
(39 OF 1970)

&

The Patent Rules, 2003

**Form for Authorization of Patent Agent/ or Any Person in a matter or Proceeding under
the Act**

[See Section 127; and Rule 135]

We, **J B INSTITUTE OF TECHNOLOGY** having address at NH-72, VILLAGE SHANKARPUR, CHAKRATA ROAD, DEHRADUN, Uttarakhand, 248197, India, do hereby authorize **Mr. Anuj Raturi [Registered Indian Patent Agent, (IN/PA:4266)] & Adv. Ram Chandra Joshi [Reg. No.: U.A. 2638/04, U.P. 2763/94 (Advocate & Notary)]** having office address, as Gyananand Bhawan, Kalinka Vihar, Majrimafi, Lane No.3, IIP Mohkampur Kala-248005, Dehradun, Uttarakhand, India, to act on our behalf in connection with the filing and pre & post grant prosecution for the invention titled **“A CONCRETE FLOOR POTHOLE REPAIR DEVICE”** filed in our name and request that all notices, requisitions and communication relating thereto may be sent to such person(s) at the above address unless otherwise specified.

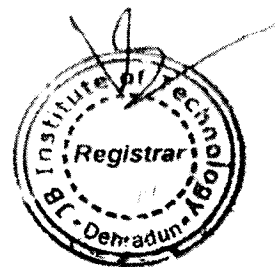
This authorization includes the right to appoint substitutes.

We hereby revoke all previous authorizations, if any made, in respect of the same matter or proceeding.

We hereby assent to the action already taken by the said person in the above matter.

Dated this: November 18, 2022.

Signature & Name:



Registrar

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To,
The Controller of Patents
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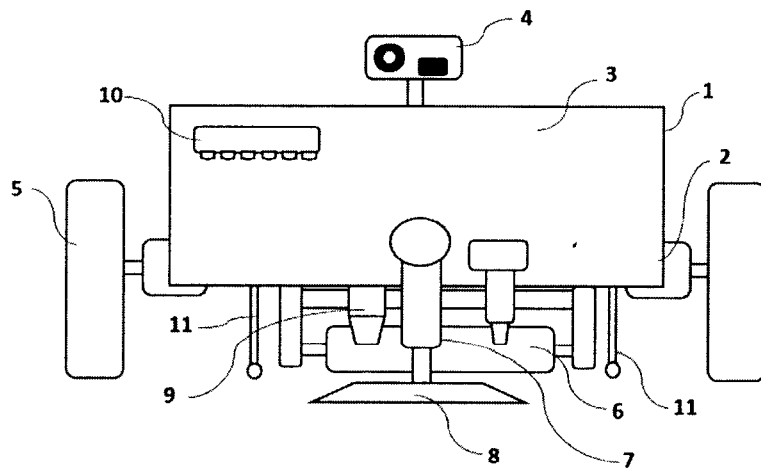


FIG. 1

Applicants: J B INSTITUTE OF TECHNOLOGY

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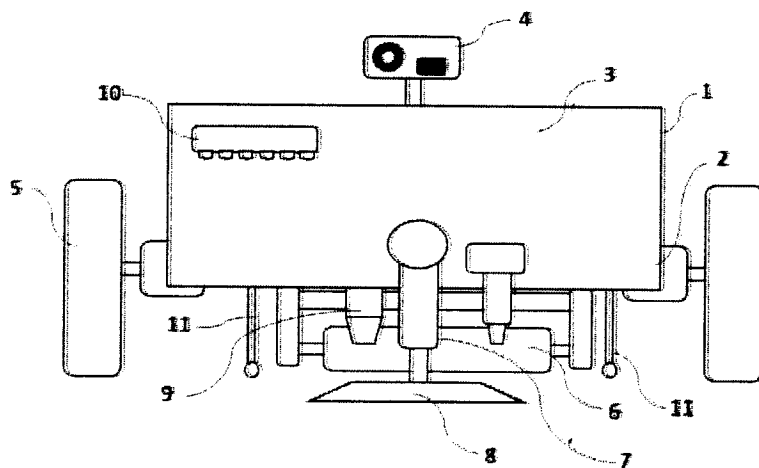


FIG. 1

Dated: November 18, 2022

ON BEHALF OF APPLICANT

Signature:

Name: Anuj Raturi [IN.P.A: 4266]

(AGENT FOR THE APPLICANT)