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(54) Title of the invention : MOVING OBJECT BASED ADEQUATE WORKING FLUID SUPPLY SYSTEM OPTIMIZED USING MACHINE LEARNING

(51) International classification	:G06F0016280000, F16M0011180000, F16L0055180000, G05B0019040000, H01L0021677000
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3)Dr. Y. V. Pavan Kumar
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(57) Abstract :
The invention is all about a robot (1), which a major component which holds a small wheels (2) which is used to navigate on the normal places as well as a bigger wheels (3) therein, used to when there is big slug or it unable to move easily. A reservoir (4) is positioned to store the lubricant, the additional provision it has a height varying unit (5) which is used when the robot height can be reduced by expanding horizontal manner. A connecting unit (6) is used to position itself in the lubricating point, therein it may requires to remove the cap, it also comprises of an additional camera within which is used to monitor the enter operation whether it doesn't in correct way or not. A camera (7) it is bigger camera on the top most part of the place of the robot (1), it is also can be tilt with varies angles, so that the navigation can be completely controlled, the sensor is embedded it stop near the obstacle as well as to identify the right spot to lubricate. A ML control unit (8) is a primary unit and used to give the data for all the functionalities that should be performed by the robot (1) includes selection of spot, navigation and all the processing input. It effectively make a connectivity to the camera (7), the connecting unit (6) and provide the complete input comments. On other hand, it is connected with the screen (9) to provide information to the end-user. The additionally it is capable of connect remotely therein, it can be controlled and get the data too.

No. of Pages : 10 No. of Claims : 2

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Application Details	
APPLICATION NUMBER	202141059605
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	21/12/2021
APPLICANT NAME	1 . Dr. Balaji. D 2 . Dr. Ch. Pradeep Reddy 3 . Dr. Y. V. Pavan Kumar 4 . Dr. D. John Pradeep 5 . Dr. L. V. Suresh Kumar 6 . Dr. Surekha Lanka 7 . Dr. N. Mohan Krihna Varma
TITLE OF INVENTION	MOVING OBJECT BASED ADEQUATE WORKING FLUID SUPPLY SYSTEM OPTIMIZED USING MACHINE LEARNING
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	
ADDITIONAL-EMAIL (As Per Record)	balaji.ntu@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	21/12/2021
PUBLICATION DATE (U/S 11A)	31/12/2021

Application Status

APPLICATION STATUS	**Application Awaiting Examination**

			View Documents

➡ Filed ➡ RQ Filed ➡ Published ➡ Under Examination

➡ Disposed

In case of any discrepancy in status, kindly contact ipo-helpdesk@nic.in

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Document Name	Created Date/Uploaded Date
202141059605-Abstract_As Filed_21-12-2021.pdf	21/12/2021
202141059605-Claims_As Filed_21-12-2021.pdf	21/12/2021
202141059605-Description Complete_As Filed_21-12-2021.pdf	21/12/2021
202141059605-Drawings_As Filed_21-12-2021.pdf	21/12/2021
202141059605-Form18_Examination Request_21-12-2021.pdf	21/12/2021
202141059605-Form1_As Filed_21-12-2021.pdf	21/12/2021
202141059605-Form2 Title Page_Complete_21-12-2021.pdf	21/12/2021
202141059605-Form3_As Filed_21-12-2021.pdf	21/12/2021
202141059605-Form5_As Filed_21-12-2021.pdf	21/12/2021
202141059605-Form9_Early Publication_21-12-2021.pdf	21/12/2021

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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) D/116822

	Application No.	202141059605
	Filing date:	21/12/2021
	Amount of Fee Paid:	1750/-
	CBR No:	47674
	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)

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3B. CATEGORY OF APPLICANT [Please tick (✓) at the appropriate category]			
Natural Person (✓)	Other than Natural Person		
	Small Entity ( )	Startup ()	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	
	Indian	India	Address	
			State	
			Country	
			Pin code	
			Mobile	
			E-mail id	

5. TITLE OF THE INVENTION

Moving object based adequate working fluid supply system optimized using machine learning

6. AUTHORISED REGISTERED PATENT AGENT(S)	IN/PA No.	
	Name	
	Mobile No.	
7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA	Name	**Balaji. D**
	Postal Address	Assistant Professor in department of Mechanical Engineering, KPR Institute of Engineering and Technology, Arasur, Coimbatore
	State	Tamil Nadu, India
	Mobile	7338714790
	E-mail id	balaji.ntu@gmail.com

8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTIONCOUNTRY, PARTICULARS OF CONVENTION APPLICATION

Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)

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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
10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OFORIGINAL (FIRST) APPLICATION	
Original (first) application No.	Date of filing of original (first) application
11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAINAPPLICATION 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.

S. No	Name	Signature	Date
1	Dr. Balaji. D		
2	Dr. Ch. Pradeep Reddy		
3	Dr. Y. V. Pavan Kumar	Y.V.Pavan Kumar	
4	Dr. D. John Pradeep		
5	Dr. L. V. Suresh Kumar		
6	Dr. Surekha Lanka		
7	Dr. N. Mohan Krishna Varma		

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(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.

(a) Date

(b) Signature(s)

(c) 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 ~~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 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 application 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.

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13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

(a) ✓Form 2

Item	Details	Fee	Remarks
Complete/ provisional specification)#	No. of pages		
No. of Claim(s)	No. of claims and No. of pages		
Abstract	No. of pages		
No. of Drawing(s)	No. of drawings and No. of pages		

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 (2 copies).

(c) Sequence listing in electronic form

(d) Drawings (in conformation 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 Inventorship on Form 5

(i) ✓Power of Authority

(j).....

.....

Total fee □.....in Cash/ Banker's Cheque /Bank Draft bearing No..... Date on ..... Bank.

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

Dated this.....day of.....20.....

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Signature:

Name: 1. Dr.Balaji. D, 2. Dr. Ch. Pradeep Reddy, 3. Dr. Y.V.Pavan Kumar 4. Dr. D.John Pradeep

Signature:

Name: 5. Dr. L.V.Suresh Kumar6. Dr. Surekha Lanka 7. Dr. N. Mohan Krishna Varma

To,

The Controller of Patents

The Patent Office, at**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";

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FORM 5
THE PATENTS ACT, 1970
(39 of 1970)
DECLARATION AS TO INVENTORSHIP
[See section 10(6); rule 13(6)]

We, **1. Dr. Balaji. D,** having address at Assistant Professor in department of Mechanical Engineering, KPR Institute of Engineering and Technology, Arasur, Coimbatore, Tamilnadu, India, Indian National
2. Dr. Ch. Pradeep Reddy, having address at Professor, School of Computer Science and Engineering, VIT-AP University, Beside AP Secretariat, Near Vijayawada, Andhra Pradesh, India, Indian National
3. Dr. Y. V. Pavan Kumar, 4. Dr. D. John Pradeep, having address at Associate Professor, School of Electronics Engineering, VIT-AP University, Beside AP Secretariat, Near Vijayawada, Andhra Pradesh, India, Indian National
5. Dr. L. V. Suresh Kumar, having address at Assistant Professor, Department of Electrical and Electronics Engineering, GMR Institute of Technology, Rajam, Srikakulam, Andhra Pradesh, India Indian National
6. Dr. Surekha Lanka, having address at Director of Technology Program, Head of Information Technology, Stamford International University, Bangkok, Thailand, Indian National
7. Dr. N. Mohan Krishna Varma, having address at Professor, Department of Computer Science and Engineering, Madanapalle Institute of Technology and Science, Madanapalle, Andhra Pradesh, India, Indian National and do hereby declare;

I am the true and first inventors of the invention disclosed in the Complete Specification filed in pursuance of our Application titled **"Moving object based adequate working fluid supply system optimized using machine learning"**

Dated this

APPLICANT(S)

Signature:

Name: 1. Dr.Balaji. D, 2. Dr. Ch. Pradeep Reddy, 3. Dr. Y. V. Pavan Kumar 4. Dr. D.John Pradeep

Signature:

Name: 5. Dr. L. V. Suresh Kumar 6. Dr. Surekha Lanka 7. Dr. N. Mohan Krishna Varma

To,
The Controller of Patents,
The Patent Office,
At **Chennai**

21-Dec-2021/116822/202141059605/Form 5

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