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Application Details

APPLICATION NUMBER	201941030859
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	31/07/2019
APPLICANT NAME	1 . DR. CHUKKA SANTHAIHAH (ASSOCIATE PROFESSOR, CSE DEPT.) 2 . MR. PITY NAGARJUNA 3 . DR. NALUGURU UDAYA KUMAR 4 . DR.R.POONKUZHALI 5 . PROF.(DR.) S. B. CHORDIYA 6 . DR. YASHPAL SINGH
TITLE OF INVENTION	I- IMAGE: INTELLIGENT IMAGE PROCESSING TECHNOLOGY TODetect THE OBJECT
FIELD OF INVENTION	MECHANICAL ENGINEERING
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PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	09/08/2019

Application Status

APPLICATION STATUS	<b>Awaiting Request for Examination</b>
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➡ Filed ➡ Published ➡ RQ Filed ➡ Under Examination ➡ Disposed

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## Patent Search

Invention Title	I- IMAGE: INTELLIGENT IMAGE PROCESSING TECHNOLOGY TODTECT THE OBJECT
Publication Number	32/2019
Publication Date	09/08/2019
Publication Type	INA
Application Number	201941030859
Application Filing Date	31/07/2019
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06Q20/00

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**Abstract:**

[55] My Invention "I- Image" The disclosure reveals a intelligent computer vision technique to measure flank and crater wear of a deep single point cutting tool. This advanced direct tool wear measurement method uses a intelligent microscope mounted high vision camera to acquire an image( 2-D, 3-D image) of the tool. Special high lighting of a face of the tool shows contrast of the wear region in the image. The image analysis is based on an interactive procedure utilizing a general purpose image(2-D, 3-D) processing system. Intelligent computer program calculates 12 parameters to characterize flank and crater wear.

## Complete Specification

Claims:WE CLAIMS

[52]

1. My Invention "I- Image" The disclosure reveals a intelligent computer vision technique to measure flank and crater wear of a deep single point cutting tool. This advanced direct tool wear measurement method uses a intelligent microscope mounted high vision camera to acquire an image( 2-D, 3-D image) of the tool. Special high lighting of a face of the tool shows contrast of the wear region in the image. The image analysis is based on an interactive procedure utilizing a general purpose image(2-D, 3-D) processing system. Intelligent computer program calculates 12 parameters to characterize flank and crater wear.
2. According to claims 1# the invention is to provide a system which enables ready determination of an appropriate brightness threshold value for use when the worn portion of a tool is to be displayed as a visible image.
3. According to claims 1# the invention is to provide an image processing system comprising means to take the image of an ITV camera of the worn portion of a tool together with surrounding portions, defining a window framing a region of said image corresponding to the worn portion and portions other than the worn portion, measuring the brightness distribution within the region framed by the window, comparing said brightness distribution with the brightness distribution within a region framed by a window expanded to frame the region framed by said window together with additional portions other than the worn portion, setting a brightness threshold value at a value falling between a region wherein variation of the brightness distribution occurs and a region in which it does not occur, and digitizing image information in the binary system using the so-obtained threshold value.
4. According to claims 1# the invention is to provide, therefore, since the brightness distribution is measured for a plurality of images including the worn portion of the

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Contact Us (<http://ipindia.gov.in/contact-us.htm>) Help (<http://ipindia.gov.in/help.htm>)

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Page last updated on: 26/06/2019

<b>FORM 1</b> THE PATENTS ACT 1970 (39 of 1970) & The Patents Rules, 2003 APPLICATION FOR GRANT OF PATENT (See sections 7, 54 & 135 and rule 20(1))	<b><u>(FOR OFFICE USE ONLY)</u></b> Application No: Filing Date Amount of Fees Paid: CBR NO: Signature:
1. APPLICANTS REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)	

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

<b>Ordinary (✓)</b>		Convention ( )		PCT-NP ( )	
Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )

**3A. APPLICANT(S):**

Name	Country of Residence	Nationality	Address
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PROF. (DR.) S. B. CHORDIYA (DIRECTOR-SIMMC-CAMPUS)	INDIA	AN INDIAN NATIONAL	SURYADATTA INSTITUTE OF MANAGEMENT & MASS COMMUNICATION (SIMMC) SR. NO: 342, BAVDHAN, PUNE-411021, MH, INDIA
DR. YASHPAL SINGH	INDIA	INDIA	FL NO: 104, WING-A, NEAR DAULAT PETROL PUMP, BHUGAON, BAVDHAN, PUNE-15, MH, INDIA

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

<b>Natural Person (✓)</b>	Other than Natural Person ( )		
	Small Entity ( )	Startup ( )	Others ( )

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

<b>Are all the inventor(s) same as the applicant(s) named above?</b>	<b>Yes (✓)</b>	<b>No ( )</b>
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If "No", furnish the details of the inventor(s) N.A

Name	Nationality	Country of Residence	Address
NA	NA	NA	NA

**5. TITLE OF THE INVENTION:**

**I- Image: INTELLIGENT IMAGE PROCESSING TECHNOLOGY TO DETECT THE OBJECT**

<b>6. AUTHORISED REGISTERED PATENT AGENT(S)</b>		NA
<b>ADDITIONAL PATENT AGENTS</b>	NA	

<b>7. ADDRESS FOR SERVICE OF APPLICANT/ PATENT AGENT(S) IN INDIA</b> DR. CHUKKA SANTHAI AH (ASSOCIATE PROFESSOR, CSE DEPT.) Address: INSTITUTE OF AERONAUTICAL ENGINEERING, DUNDIGAL ROAD, DUNDIGAL, HYDERABAD, TELANGANA 500043, INDIA e-mail: chukka.santh@gmail.com	Mobile No.: 8059794469 E-mail: <a href="mailto:dr.bksarkar2003@yahoo.in">dr.bksarkar2003@yahoo.in</a>
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**8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION: N.A**

Country	Appln. Number	Filing Date	Name of the Applicant	Title of the Invention	IPC (as classified in the convention country)
NA	NA	NA	NA	NA	NA

**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 as allotted by the receiving office.
NA	NA

**10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION : N.A**

Original (first) application number	Date of filing of Original (first) application
N.A.	N.A.

**11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54,  
PARTICULARS OF MAIN APPLICATION OR PATENT: N.A**

Main application / patent Number	Date of filing of main application
N.A.	N.A.

**12. DECLARATIONS:**

**(i) Declaration by the Inventor:**

**(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).

We, the above named inventor are the true & first inventor for this invention and declare that the applicant herein is my assignee or legal representative:

**NA**

**(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. : **N.A.**

**(iii) Declaration by the applicants:**

We, the applicants hereby declare that: -

1. We are in possession of the above-mentioned invention.
2. The **Complete Specification** relating to the invention is filed with this application.
3. 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 patent to us: **N.A.**
4. There is no lawful ground of objection to the grant of the patent to me/ us.
5. We are the assignees or legal representatives of true and first inventors:
6. The application or each of the applications, particulars of which are given in Para – 8 was the first application in convention country/ countries in respect of our invention: **N.A.**
7. We claim the priority from the above mentioned application 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 us or by any person from which we derive the title: **YES**
8. Our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Para-9: **N.A.**

9. The application is divided out of our application particulars of which is given in Para-10 and prays that this application may be treated as deemed to have been filed on N.A. Under sec.16 of the Act: **N.A.**
10. The said invention is an improvement in or modification of the invention particulars of which are given in Para-11 :**N.A.**

**FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION**

**(a) Form 2**

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

1. Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies) **N.A**
2. Sequence listing in electronic form **N.A**
3. Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies) **N.A**
4. Statement and Undertaking on Form-3
5. Declaration of Inventor ship on Form-5
6. Request For Publication Form9 , 2750.Rs
7. Form18 Examination Request, 4400.Rs
8. Power of Authority
9. Other Form 4 to 31 According to needed can fill.

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

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

**Dated this    day of.....28/7/19**

DR. CHUKKA SANTHAIAH (ASSOCIATE PROFESSOR, CSE DEPT.)  
MR. PITY NAGARJUNA  
DR. NALUGURU UDAYA KUMAR (DEPT. ECE)  
DR.R.POONKUZHALI (ASSOCIATE PROFESSOR)  
PROF.(DR.) S. B. CHORDIYA ( DIRECTOR-SIMMC-CAMPUS)

DR. YASHPAL SINGH

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