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Patent Search

Invention Title	MECHANICAL FACTORS INFLUENCING SUCCESS IN ROOT CANAL OBTURATION
Publication Number	46/2019
Publication Date	15/11/2019
Publication Type	INA
Application Number	201921045260
Application Filing Date	07/11/2019
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	COMPUTER SCIENCE
Classification (IPC)	G06K15/14

Inventor			
Name	Address	Country	Nationality
DR. SANJEEV REDDY K. HUDGIKAR	E6/15, PREM PARK, MASULKAR COLONY, PIMPRI, PUNE-411018, MAHARASHTRA, INDIA.	India	India
NILESH R. PAWAR	D.Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE-411033, MAHARASHTRA,INDIA	India	India
SWAPNIL V. GHOGARDARE	D.Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE-411033,MAHARASHTRA,INDIA	India	India
V. MAHIDHAR REDDY	INSTITUTE OF AERONAUTICAL ENGINEERING, DUNDIGAL, HYDERABAD-500 043, TELANGANA,INDIA	India	India
MAHALINGESH BAGALI	ANGEL INSTITUTE OF TECHNOLOGY AND DESIGN, KADAPA 516126,INDIA	India	India

Applicant			
Name	Address	Country	Nationality
DR. SANJEEV REDDY K. HUDGIKAR	E6/15, PREM PARK, MASULKAR COLONY, PIMPRI, PUNE-411018, MAHARASHTRA, INDIA.	India	India
NILESH R. PAWAR	D.Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE-411033, MAHARASHTRA,INDIA	India	India
SWAPNIL V. GHOGARDARE	D.Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE-411033,MAHARASHTRA,INDIA	India	India
V. MAHIDHAR REDDY	INSTITUTE OF AERONAUTICAL ENGINEERING, DUNDIGAL, HYDERABAD-500 043, TELANGANA,INDIA	India	India
MAHALINGESH BAGALI	ANGEL INSTITUTE OF TECHNOLOGY AND DESIGN, KADAPA 516126,INDIA	India	India

Abstract:

6. ABSTRACT: For the development of this work, we selected several CNN architectures and trained them end-to-end with hand radiograph images using only their pixel information. With these experiments we seek to evaluate the capacity of the models to learn RA visual features in a similar way a rheumatologist uses in a diagnosis. III.1. Image dataset The images used in this study came from the department of Rheumatology in Hermanos Ameijeiras Hospital, located in Havana, Cuba. They consist in 92 gray-scale digital radiographs of both hands, used by medical specialist in their diagnosis of RA. In Table 1 the characteristics of this dataset are displayed. III. 1.1. Ethics All medical images are anonymous, it is not possible to relate the patient's name to the radiograph, and they were only used for the development of this work, following all rules of confidentiality. Table 1. Image database characteristics. Number of cases 92 With RA 37 Without RA 55 Image resolution 4280x3520 pixels Image format DICOM Color depth 12 bits III.2. Software tools For the implementation of neural networks, the open source library Keras was used. It is available in Python, and uses Google's Tensorflow as its backend. We chose it for its simplicity, speed and control during the design of complex networks. OpenCV and Numpy modules were used to handle and process the images. III.3. Preprocessing In the first stage of data processing, the pixel matrix of the image was extracted, discarding all metadata information attached to the DICOM file header such as patient's name, sex, age, etc; ensuring the anonymity of each case in this research. Then, the resolution of the image was decreased from 4280x3520 to 256x204 pixels, keeping only 0.3466% of the original data. Finally, the values of the pixels were normalized in a range between 0 and 1.

Complete Specification

FORM 2
 THE PATENT ACT 1970
 (39 of 1970)
 &
 The Patent Rule, 2003
 Complete Specification
 (see section 10 and Rule 13)

TITLE OF INVENTION: Mechanical Factors influencing Success in Root Canal
 Obturation.

2. PREAMBLE TO DESCRIPTION: Mechanical Factors influencing Success in Root Canal Obturation.

3. DESCRIPTION:

Root canal treatment (RCT) deals with repairing and saving the tooth that is badly decayed or becomes infected. Endodontic means treating tooth from inside. Obturation is a process of complete filling and sealing of 3D root canal space with gutta percha as biocompatible sealing material against bacterial growth. The main cause of Endodontic treatment failure is the incomplete sealing of the root canal. The degree of endodontic success needs to be evaluated based on mechanical sealing of root canal cavity with

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**Department of Industrial
Policy and Promotion**
Government of India

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Application Details

APPLICATION NUMBER	201921045260
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	07/11/2019
APPLICANT NAME	1 . DR. SANJEEV REDDY K. HUDGIKAR 2 . NILESH R. PAWAR 3 . SWAPNIL V. GHOGARDARE 4 . V. MAHIDHAR REDDY 5 . MAHALINGESH BAGALI
TITLE OF INVENTION	MECHANICAL FACTORS INFLUENCING SUCCESS IN ROOT CANAL OBTURATION
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	
ADDITIONAL-EMAIL (As Per Record)	drhudgikar@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	15/11/2019

Application Status


APPLICATION STATUS	Awaiting Request for Examination
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➡ Filed ➡ Published ➡ RQ Filed ➡ Under Examination ➡ Disposed

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

D.No. 57725

FORM 1 THE PATENTS ACT 1970 (39 of 1970) THE PATENTS RULES, 2003 APPLICATION FOR GRANT OF PATENT (See section 7, 54 and 135 and sub-rule (1) of rule 20)				 200279363 (FOR OFFICE USE ONLY)	
Application No.			201921045260		
Filing date:			07/11/2019		
Amount of Fee paid:			1750/- रूपय एकद/वेक/मनो ऑर्डर द्वारा		
CBR No:			CBR संख्या. 24041..दि..07/11/2019		
Signature:			के महल प्राप्त हुए।		
1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)			<u>KA</u>		
2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]					रोकटिय
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	
1. Dr. Sanjeev Reddy K. Hudgikar		INDIAN	INDIA	E 6/15, PREM PARK ,MASULKAR COLONY, PIMPRI , PUNE-411018 MAHARASHTRA, INDIA	
2. Nilesh R. Pawar		INDIAN	INDIA	D.Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE - 411033, MAHARASHTRA, INDIA.	
3. Swapnil V. Ghogardare		INDIAN	INDIA	D.Y. PATIL COLLEGE OF ENGINEERING, AKURDI, PUNE - 411033, MAHARASHTRA, INDIA.	
4. V. Mahidhar Reddy		INDIAN	INDIA	INSTITUTE OF AERONAUTICAL ENGINEERING; DUNDIGAL, HYDERABAD - 500 043, TELANGANA, INDIA	
5. Mahalingesh Bagali		INDIAN	INDIA	ANGEL INSTITUTE OF TECHNOLOGY AND DESIGN, KADAPA 516126, INDIA	
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)		Yes (✓)		No ()	
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	
				House No.	
				Street	
				City	
				State	
				Country	
				Pin code	
5. TITLE OF THE INVENTION: Mechanical Factors influencing Success in Root Canal Obturation.					
6. AUTHORISED REGISTERED PATENT AGENT(S)		IN/PA No.			
		Name			
		Mobile No.			
7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA		Name		Dr. Sanjeev Reddy K. Hudgikar	
		Postal Address		E 6/15, PREM PARK ,MASULKAR COLONY, PIMPRI , PUNE-411018 MAHARASHTRA, INDIA	
		Telephone No.			
		Mobile No.		9481823799	
		Fax No.			
		E-mail ID		drhudgikar@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 Invention	IPC (as classified in the convention country)
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 OF ORIGINAL (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 MAIN APPLICATION OR PATENT	
Main application/patent No.	Date of filing of main application
12. DECLARATIONS	
<p>(i) Declaration by the inventor(s)</p> <p>(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).</p> <p>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.</p> <p>(a) Date:</p> <p>(b) Signature(s): 1. (.....) 2. (.....) 3. (.....) 4. (.....) 5. (.....)</p> <p>(c) Name(s): 1. Dr Sanjeev Reddy K. Hudgikar 2. Nilesh R. Pawar 3. Swapnil V. Ghogardare 4. V. Mahidhar Reddy 5. Mahalingesh Bagali</p>	
<p>(ii) Declaration by the applicant(s) in the convention country</p> <p>(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)</p> <p>I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.</p> <p>(a) Date</p> <p>(b) Signature(s): 1. (.....) 2. (.....) 3. (.....) 4. (.....) 5. (.....)</p> <p>(c) Name(s): 1. Dr Sanjeev Reddy K. Hudgikar 2. Nilesh R. Pawar 3. Swapnil V. Ghogardare 4. V. Mahidhar Reddy 5. Mahalingesh Bagali</p>	

(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.

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION

(a) Form 2

Item	Details	Fee	Remarks
Complete/ provisional specification)#	No. of pages 3	1750/-	
No. of Claim(s)	No. of claims and No. of pages 06 01		
Abstract	No. of pages 01		
No. of Drawing(s)	No. of drawings and No. of pages 02 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 (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) Form No 9
- (k) ~~Form No 18~~
- (k).....

Total fee ₹ 4,500 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 Thursday day of 07.....2019.....

Signature:

Name: 1. Dr. Sanjeev Reddy K. Hudgikar. 2. ^{Nilesh} Nilesh R. Pawar 3. ^{Swapnil} Swapnil V. Ghogardave

^M 4. V. Mahidhar Reddy 5. ^{Basude} Mahalingesh Bagati

To,
The Controller of Patents
The Patent Office, Mumbai