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Patent Search

Invention Title	BCS-DEVICE: DEVICE TO DISPLAY THEBREAST CANCER STATUS (BIOINFORMATICS BREAST CANCER DETECTION)
Publication Number	23/2019
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Application Number	201941018716
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Priority Country	
Priority Date	
Field Of Invention	BIO-MEDICAL ENGINEERING
Classification (IPC)	A61B6/502

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Applicant

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SIVA S	FL NO: 208, S.L.SPRING FIELDS APARTMENT, BESIDE MANYTHA TECH PARK, NEAR NAGAWARE RING ROAD, NAGAWARA, BANGALORE-560045,INDIA	India	India
PROF. ALAKNANDA S. PATIL	SATIN HILLS CHS, BAVDHAN, PUNE-411021, MH, INDIA	India	India
DR. D. SHANTHI	H NO: 2-4-109/70/7A, EVR COLONY, STREET NO:04, BODUPPAL HYDERABAD-500092,INDIA	India	India
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Abstract:

This Invention “BCS-Device” is a power full tool to detect the CANCER by using; Advanced Quantitative Transmission Ultrasound (QT) is a powerful and emerging imaging paradigm which has the potential to perform true to fetch 0 Degree to 360 Degree three-dimensional intelligent image reconstruction of biological tissue. Breast imaging is an important application of QT and allows non-invasive, non-ionising imaging of complete breasts in viva and other advanced technology. Here, we report the first demonstration of breast tissue different type of image classification in QT imaging. The “BCS-Device” Can assess of the ability of the QT images' features to differentiate between advanced normal breast tissue types. The three QT advanced features were used in Support Vector Machines (SVM) average classifiers, and classification of breast tissue as either skin, fat, nose=skin-finger-skin, glands, ducts or connective tissue was demonstrated with an overall accuracy of greater than 92%. Finally, the classifier was validated on complete breast image volumes to provide a various color-coded breast tissue volume. This study serves as a first and second step towards a computer-aided detection/diagnosis platform for QT.

Complete Specification

Claims:1. This Invention “BCS-Device” is a power full tool to detect the CANCER by using; Advanced Quantitative Transmission Ultrasound (QT) is a powerful and emerging imaging paradigm which has the potential to perform true to fetch 0 Degree to 360 Degree three-dimensional intelligent image reconstruction of biological tissue. Breast imaging is an important application of QT and allows non-invasive, non-ionising imaging of complete breasts in viva and other advanced technology. Here, we report the first demonstration of breast tissue different type of image classification in QT imaging. The “BCS-Device” Can assess of the ability of the QT images' features to differentiate between advanced normal breast tissue types. The three QT advanced features were used in Support Vector Machines (SVM) average classifiers, and classification of breast tissue as either skin, fat, nose=skin-finger-skin, glands, ducts or connective tissue was demonstrated with an overall accuracy of greater than 92%. Finally, the classifier was validated on complete breast image volumes to provide a various color-coded breast tissue volume. This study serves as a first and second step towards a computer-aided detection/diagnosis platform for QT.

2. According to claims 1# the invention is detected the CANCER.

3. According to claims 1# the invention is detected the stage of a CANCER.

4. According to claims 1# the invention is to provide the 3-D image of a CANCER location.

5. According to claims 1# the invention is to provide the view of object in 0-degree to 360-Degree.

6. According to claims 1# the invention is to provide the medicine of stage of a CANCER

7. According to claims 1# the invention is to provide the time line of stage of a CANCER

8. According to claims 1# the invention is to provide the expenses of stage of a CANCER

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Policy and Promotion**
Government of India

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Application Details

APPLICATION NUMBER	201941018716
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	10/05/2019
APPLICANT NAME	1 . DR. CHUKKA SANTHAIAH 2 . SURESH KUMAR KOLLIMALLA 3 . DR.R. SUMALATHA 4 . Dr. R. DELSHI HOWSALYA DEVI 5 . SIVA S 6 . PROF. ALAKNANDA S. PATIL 7 . DR. D. SHANTHI 8 . PROF.(DR.) BEG RAJ
TITLE OF INVENTION	BCS-DEVICE: DEVICE TO DISPLAY THEBREAST CANCER STATUS (BIOINFORMATICS BREAST CANCER DETECTION)
FIELD OF INVENTION	COMPUTER SCIENCE
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ADDITIONAL-EMAIL (As Per Record)	dr.bksarkar2003@yahoo.in
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	07/06/2019

Application Status

APPLICATION STATUS	Awaiting Request for Examination
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[View Documents](#)

➡ Filed ➡ Published ➡ RQ Filed ➡ Under Examination ➡ Disposed

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

FORM 1 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))	<u>(FOR OFFICE USE ONLY)</u> 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]

Ordinary (✓)		Convention ()		PCT-NP ()	
Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()	Divisional ()	Patent of Addition ()

3A. APPLICANT(S):

Name	Nationality	Country of Residence	Address
DR. CHUKKA SANTHAIAH (ASSOCIATE PROFESSOR, CSE DEPT.)	AN INDIAN NATIONAL	INDIA	INSTITUTE OF AERONAUTICAL ENGINEERING,DUNDIGAL ROAD, DUNDIGAL, HYDERABAD, TELANGANA 500043, INDIA
SURESH KUMAR KOLLIMALLA	AN INDIAN NATIONAL	INDIA	9-4-189, KRISHNA NAGAR, HIGH SCHOOL ROAD, GAJUWAKA, VISAKHAPATANAM - 530026 ,A.P, INDIA
DR.R. SUMALATHA (ASSOCIATE PROFESSOR ECE DEPT.)	AN INDIAN NATIONAL	INDIA	VARDHAMAN COLLEGE OF ENGINEERING, NAGARGUDA SHAMSHABAD ROAD, KACHARAM, HYDERABAD, TELANGANA 501218, INDIA
Dr. R. DELSHI HOWSALYA DEVI (ASSOCIATE PROFESSOR)	AN INDIAN NATIONAL	INDIA	BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY,MANGALPALLY (V), IBRAHIMPATNAM (M) ,RANGA REDDY (D) HYDERABAD-501 510, TELANGANA, INDIA.
SIVA S	AN INDIAN NATIONAL	INDIA	FL NO: 208, S.L.SPRING FIELDS APARTMENT, BESIDE MANYTHA TECH PARK, NEAR NAGAWARE RING ROAD, NAGAWARA, BANGALORE-560045,INDIA
PROF. ALAKNANDA S. PATIL	AN INDIAN NATIONAL	INDIA	SATIN HILLS CHS, BAVDHAN, PUNE-411021, MH, INDIA

DR. D. SHANTHI	AN INDIAN NATIONAL	INDIA	H NO: 2-4-109/70/7A, EVR COLONY, STREET NO:04, BODUPPAL HYDERABAD-500092,INDIA
PROF.(DR.) BEG RAJ (DIRECTOR/ PRINCIPAL)	AN INDIAN NATIONAL	INDIA	DIRECTOR/ PRINCIPAL, AITM ENGINEERING INSTITUTE, PAHARIA-SARNATH ROAD ASHOKA ENGINEERING CHAURAH SARNATH, PAHARIA, VARANASI-221007 UTTAR PRADESH , 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) same as the applicant(s) named above?	Yes (✓)	No ()
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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:

BCS-Device: DEVICE TO DISPLAY THE BREAST CANCER STATUS (BIOINFORMATICS BREAST CANCER DETECTION)

6. AUTHORISED REGISTERED PATENT AGENT(S)		NA
ADDITIONAL PATENT AGENTS	NA	

7. ADDRESS FOR SERVICE OF APPLICANT/ PATENT AGENT(S) IN INDIA DR. CHUKKA SANTHAIAH (ASSOCIATE PROFESSOR, CSE DEPT.) Address: INSTITUTE OF AERONAUTICAL ENGINEERING, DUNDIGAL ROAD, DUNDIGAL, HYDERABAD, TELANGANA 500043, INDIA	Mobile No.: 8059794469 E-mail: dr.bksarkar2003@yahoo.in
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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.

- (b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies) **N.A**
- (c) Sequence listing in electronic form **N.A**
- (d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies) **N.A**
- (e) Statement and Undertaking on Form-3
- (f) Declaration of Inventor ship on Form-5
- (g) Request For Publication Form-9 : 2750.Rs
- (h) Power of Authority

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.....2019

DR. CHUKKA SANTHAI AH
DR.R. SUMALATHA
SIVA S
DR. D. SHANTHI

SURESH KUMAR KOLLIMALLA
Dr. R. DELSHI HOWSALYA DEVI
PROF. ALAKNANDA S. PATIL
PROF.(DR.) BEG RAJ

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