FORM 2

THE PATENT ACT 1970

(39 OF 1970)

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THE PATENTS RULES, 2003

PROVISIONAL/COMPLETE SPECIFICATION

(See section 10 and rule 13)

710057480

1. TITLE OF THE INVENTION : SYNTHETIC MEDICAL IMAGE SEGMENTATION AND EDGE DETECTION USING IMAGE PROCESSING TECHNIQUE

2. APPLICANT(S)

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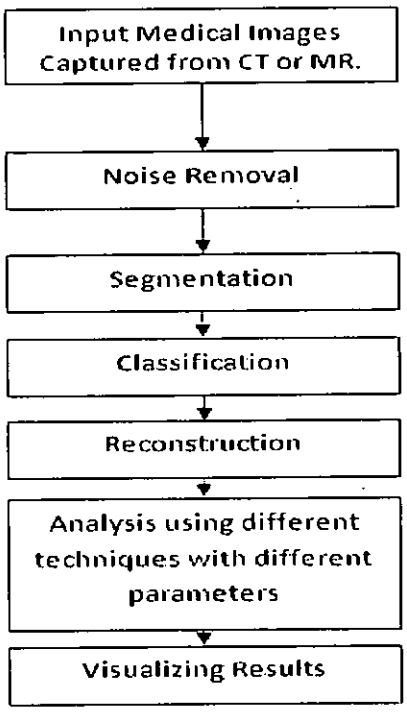
3.	PREAMBLE TO THE DESCRIPTION	
	PROVISIONAL	COMPLETE
		The following specification describes the invention. Image segmentation is the most important in the Analysis of processed image data, low level visionimage analysis, pattern recognition and in robotics systems. Image segmentation is the process of dividing an image into different regions such that each region is homogenous.Image segmentation is the most essential and crucial process forfacilitating the delineation, characterization and visualization of regions of interest in anymedical image.Edge detection will preserve the structural properties of an image and filter out unwanted data. Edges are local changes in the image intensity.
4.	DESCRIPTION (Description shall start from next page) Refer Annexure - I	

5.	CLAIMS (not applicable for provisional specification. Claims should start with the preamble --- " I/we claim" on separate page) Refer Annexure-2
6.	DATE AND SIGNATURE (to be given at the end of last page of specification 22/2/24
7.	ABSTRACT OF THE INVENTION (to be given along with complete specification on separate page) Refer Annexure-3
	Note:- ϒ Repeat boxes in case of more than one entry. ϒ To be signed by the applicant(s) or by authorized registered patent agent. ϒ Name of the applicant should be given in full, family name in the beginning. ϒ Complete address of the applicant should be given stating the postal index no/ code, state and country. ϒ Strike out the column which is/are not applicable.

ANNEXURE 1

Image segmentation a solution to number of computer vision problems is the process of dividing an image into different regions such that each regions is homogenous. Image segmentation methods are categorized on the basis of two properties discontinuity and similarity. Methods based on discontinuities are called as boundary based methods and methods based on similarity are called Region based methods. The most important part of medical image processing is image segmentation. Image segmentation is a procedure for extracting the region of interest (ROI) through an automatic or semi-automatic process. Edge detection is the process of identifying and locating harp discontinuities in an image. The discontinuities are abrupt changes in pixel intensity which characterizes boundaries of objects. Discontinuity based segmentation technique, segmenting an image based on sudden change in intensity. Discontinuity mainly concerned with identification of isolated points, lines and edges of an image. Edge detection is mostly used techniques in digital image processing.



ANNEXURE 2

1. A method for Synthetic Medical image segmentation and Edge Detection using Image Processing Technique
2. A method as we claimed in 1, It can be used for Image Segmentation
3. A method as we claimed in 1, It can be used as a Medical application for Image processing
4. A method as we claimed in 1, It can also be used Edge detection in Image processing
5. A method as we claimed in 1, It can used as Edge Filter

ANNEXURE 3

Image segmentation is the most important in the analysis of processed image data, low level vision image analysis, pattern recognition and in robotics systems. Image segmentation is the process of dividing an image into different regions such that each region is homogenous. Image segmentation is the most essential and crucial process for facilitating the delineation, characterization and visualization of regions of interest in any medical image. Edge detection will preserve the structural properties of an image and filter out unwanted data. Edges are local changes in the image intensity. The edges detected by algorithms are used by advanced computer vision, medical field, geologic formation extraction, biometric and many more fields. Edge detection significantly reduces the amount of data and filters out useless information while preserving the important structural properties in an image.