

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441061769 A

(19) INDIA

(22) Date of filing of Application :14/08/2024

(43) Publication Date : 23/08/2024

(54) Title of the invention : DE-NOISING MEDICAL IMAGES IN TRANSFORM DOMAIN

(51) International classification :G06T0005700000, H04N0019630000, G06T0007000000, A61B0005000000, G06T0005100000  
(86) International Application No Filing Date :NA :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number Filing Date :NA :NA  
(62) Divisional to Application Number Filing Date :NA :NA

(71)Name of Applicant :  
**1)Malla Reddy Engineering College**  
Address of Applicant :Malla Reddy Engineering College Dhulapally post via Kompally Maisammaguda Secunderabad -500100 Secunderabad Secunderabad ----  
**2)Dr.Sima Sahu**  
Name of Applicant : NA  
Address of Applicant : NA  
(72)Name of Inventor :  
**1)Dr.Sima Sahu**  
Address of Applicant :Associate Professor ECE Department, Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. State:Telangana Email ID & Contact Number:simahal@mrec.ac.in& 9491771860 Secunderabad ----  
**2)Navya Raparthi**  
Address of Applicant :Assistant Professor ECE Department, Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. State:Telangana Email ID & Contact Number:navyaparthi450@gmail.com &7702298880 Secunderabad ----  
**3)Dr.Pravin Akula**  
Address of Applicant :Professor Department of Electronics and Communication Engineering Bonam Venkata Chalamayya Engineering College(A), Odalarevu, Amalapuram, Andhra Pradesh 533210 Email ID & Contact Number: akula.pravin@gmail.com 9177547999 Amalapuram ----  
**4)Dr.N S N LAKSHMIPATHI RAJU**  
Address of Applicant :Professor Department of Electronics and Communication Engineering Bonam Venkata Chalamayya Engineering College(A), Odalarevu, Amalapuram, Andhra Pradesh 533210 Email ID & Contact Number: nlp्राजुece.bvce@bvcgroup.in 9866469639 Amalapuram ----  
**5)Dr.Ch.Santhi Rani**  
Address of Applicant :Professor ECE Department, Usha Rama College of Engineering and Technology Telaporlu, Near Gannavaram Vijayawada -521109 Andhra Pradesh Email ID & Contact Number:santhirani.ece@gmail.com & 9866507140 Vijayawada ----  
**6)Dr.P.Sankara Rao**  
Address of Applicant :Associate Professor ECE Department Avanthi Institute of Engineering and Technology Cherukupalli(v) Bhogapuram (M) Vizianagaram Dist.-531162 Andhra Pradesh Email ID & Contact Number: sankar.ecehod@gmail.com& 9502995717 Vizianagaram ----  
**7)K Suresh kumar**  
Address of Applicant :Associate Professor ECE Department RISE Prakasam Group of Institutions Valluru NH16 Ongole-523272 Prakasam district Andhra Pradesh 9912304956 Ongole ----

(57) Abstract :

Now a day image processing has a great application in medical science. This invention projected a de-noising method based on wavelet transform for medical images. Acquisition and Transformation of medical images cause noise. This noise affects the diagnosis process of the disease and must be removed. The noises in the medical images can be additive and multiplicative noises. This innovation is efficient in removing both the noises. A threshold value is determined using soft thresholding method. The wavelet coefficients are thresholded and recovered. Wavelet thresholding filter is a common type of wavelet-based filter that can remove multiplicative and additive noise. The basic steps of this type of filters involve generation of wavelet coefficients, modification of wavelet coefficients and recovering of image from the modified wavelet coefficients by inverse wavelet transform. For modifying the wavelet coefficients a threshold value is required and the de-noising efficiency depends on the threshold value. Soft and Hard thresholding methods are widely used and have been proved more promising in removing the additive and multiplicative noise.

No. of Pages : 6 No. of Claims : 3