(12) PATENT APPLICATION PUBLICATION   (21) Application No.202341057366 A

(19) INDIA

(22) Date of filing of Application :26/08/2023   (43) Publication Date : 08/09/2023

(54) Title of the invention : A METHOD AND APPARATUS FOR 3D BIOMEDICAL IMAGE RECONSTRUCTION

(71)Name of Applicant :
  1)Andhra University
    Address of Applicant :Visakhapatnam, Andhra Pradesh, India. Pin Code: 530003 ----------- -----------
Name of Applicant : NA
Address of Applicant : NA
(72)Name of Inventor :
  1)Prof. James Stephen Meka
Address of Applicant :Dr. B. R. Ambedkar Chair Professor, Dean, A.U. TDR-HUB, Andhra University, Visakhapatnam, Andhra Pradesh, India. Pin Code: 530003 ----------- -----------
  2)Mr.Anirudh Edupuganti
Address of Applicant :Research Scholar, Department of CS & SE, Andhra University, Visakhapatnam, Andhra Pradesh, India. Pin Code: 530003 ----------- -----------
  3)Mr.I.Ravi Kumar
Address of Applicant :Research Scholar, Department of CS & SE, Andhra University, Visakhapatnam, Andhra Pradesh, India. Pin Code: 530003 ----------- -----------
  4)Mr.K. Joseph Noel
Address of Applicant :Associate Professor, Department of Mechanical Engineering, Wellfare Institute of Science, Technology & Management (WISTM), Pinagadi, Pendurthy, Visakhapatnam, Andhra Pradesh, India. Pin Code: 531173 ----------- -----------
  5)Mrs.K.V.Lakshmi
Address of Applicant :Research Scholar, Department of IT & CA, Andhra University, Visakhapatnam, Andhra Pradesh, India. Pin Code: 530003 ----------- -----------
  6)Mrs.Malla Sirisha
Address of Applicant :Research Scholar, Department of IT & CA, Andhra University, Visakhapatnam, Andhra Pradesh, India. Pin Code: 530003 ----------- -----------

(57) Abstract :
A method and apparatus for 3D biomedical image reconstruction, employing advanced computational algorithms, adaptive filtering techniques, and artificial intelligence methodologies. The system provides high-definition 3D reconstructions from various imaging modalities while ensuring swift processing times. The adaptive filters mitigate distortions, and the AI-driven process enhances image quality and provides deeper data analysis. With an emphasis on personalization, the invention tailors reconstructions to individual patient data, making it valuable for both clinical and research applications. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 18 No. of Claims : 10