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Patent Search

Invention Title	NEURO-FUZZY AND MRI IMAGING-BASED DETECTION AND OPTIMIZATION OF BONE CANCER USING DEEP NEURAL NETWORKS
Publication Number	40/2023
Publication Date	06/10/2023
Publication Type	INA
Application Number	202321057525
Application Filing Date	28/08/2023
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIO-MEDICAL ENGINEERING
Classification (IPC)	A61B0005000000, G06N0003040000, G06N0003080000, A61B0005055000, A61P0035000000

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Abstract:

The present invention relates to provide a neuro fuzzy and MRI imaging based detection and optimiztion of bone cancer using deep neural network. The present inve
introduces a groundbreaking approach to the early detection and optimization of bone cancer treatment by merging neuro-fuzzy logic, MRI imaging, and deep neural
Bone cancer, a highly aggressive disease affecting the skeletal system, necessitates timely detection for effective treatment. Recent advancements in medical imaging
Magnetic Resonance Imaging (MRI), have improved cancer diagnosis. By integrating artificial intelligence, such as deep neural networks and neuro-fuzzy systems, acc
cancer detection and treatment optimization is enhanced. Neuro-fuzzy logic combines neural networks' pattern recognition and fuzzy logic's uncertainty handling, su
noisy medical data. MRI, a radiation-free technique, offers detailed soft tissue and bone images, essential for bone tumor detection. Deep neural networks, particular
Convolutional Neural Networks, excel in tumor segmentation using MRI data.

Complete Specification

Description:Technical field of invention:

The present invention relates to provide a neuro fuzzy and MRI imaging based detection and optimiztion of bone cancer using deep neural network.

Background:

The convergence of medical imaging, artificial intelligence (AI), and cancer research has led to innovative approaches for bone cancer detection and treatment optim

Traditional diagnostic methods have limitations in accuracy and early detection. Advanced imaging technologies like Magnetic Resonance Imaging (MRI) provide det insights into bone structures.

Further, AI techniques, including neuro-fuzzy logic and deep neural networks, have shown promise in enhancing accuracy and treatment strategies.

Combining neuro-fuzzy logic and MRI imaging with deep neural networks offers a novel solution for improved bone cancer detection and personalized treatment optimization, addressing the critical need for early diagnosis and effective interventions

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