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(57) Abstract :

[034] The present invention relates to a system and method for enhanced medical image processing using advanced numerical methods to improve diagnostic accuracy and efficiency. The system integrates noise reduction techniques, adaptive contrast enhancement, AI-driven segmentation, and anomaly detection to process medical images from various imaging modalities. By leveraging deep learning algorithms, numerical optimization techniques, and cloud-based storage, the invention ensures real-time analysis and seamless collaboration among healthcare professionals. The proposed system enhances early disease detection, automates diagnostic workflows, and provides precise insights for clinical decision-making. The invention further supports remote healthcare applications and scalable deployment, making advanced medical imaging more accessible and reliable. Accompanied Drawing [FIGS. 1-2]

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