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Special issue on Digital Image Analysis for Disease Detection in Medical Imaging

Digital image analysis has become an increasingly important tool in medical imaging for disease detection. It involves the use of computer algorithms to analyze digital images and extract information that can be used to diagnose or monitor disease. In medical imaging, digital image analysis can be used to detect various diseases such as cancer, Alzheimer's disease, and cardiovascular disease. For instance, in cancer detection, digital image analysis can be used to analyze medical images of tumors and identify features such as size, shape, and texture that are indicative of cancer. There are various techniques used in digital image analysis for disease detection in medical imaging. These include machine learning algorithms, deep learning algorithms, and computer vision techniques. Machine learning algorithms can be used to train models to recognize patterns in medical images that are indicative of disease. Deep learning algorithms, on the other hand, can be used to analyze large sets of medical images and identify complex patterns that may not be immediately recognizable by human experts. Computer vision techniques can be used to extract features such as edges, corners, and texture from medical images and use these features to identify regions of interest that may be indicative of disease.

Despite the potential benefits of digital image analysis for disease detection in medical imaging, there are still some limitations and challenges that need to be addressed. Some of these limitations include Data quality and quantity, Interpretability, Generalizability, Validation, etc. Overall, digital image analysis for disease detection in medical imaging holds great promise for improving disease diagnosis and treatment. However, continued research and development are needed to ensure its effectiveness and safety for clinical use. This special issue on Digital image analysis for disease detection in medical imaging aims to provide a platform for researchers and practitioners to share their latest research findings, developments, and applications of digital image analysis in medical imaging for disease detection.



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Topics of inters:

- Artificial intelligence and machine learning techniques for disease detection in medical imaging.
- Deep learning algorithms for medical image analysis.
- 3D imaging for disease detection and diagnosis.
- Multi-modal imaging for disease detection and diagnosis.
- Automated detection and segmentation techniques for medical imaging.
- Interpretability and explainability of digital image analysis techniques in medical imaging.
- Validation and benchmarking of digital image analysis algorithms for disease detection.
- Clinical applications of digital image analysis in disease detection and diagnosis.
- Multi-modal imaging for improved detection of osteoporosis in elderly patients
- Development of a real-time image analysis system for stroke detection in brain MRI scans
- Comparing the accuracy of deep learning algorithms with human experts in detecting breast cancer
- Future of interpretability and explainability of digital image analysis in medical imaging



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Important Dates:

- ✓ Manuscript Submission Deadline Date: 30, November 2023
- ✓ Authors Notification Date: 30, January 2024
- ✓ Revised Papers Due Date: 15, March 2024
- ✓ Final notification Date: 30, May 2024

Guest Editors:

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