

CALL FOR PAPERS

Lung cancer is a disease with significant prevalence in several countries around the world. According to the statistics from World Health Organization, lung cancer is the most common cause of cancer-related death in the world. An estimated 1.8 million new cases were diagnosed in 2012. The five-year survival rate for patients diagnosed with lung cancer at a later stage is only 10%–15%. Pulmonary nodules are a potential manifestation of lung cancer. If pulmonary nodules are detected at an early stage, then five-year survival rate can be increased up to 65%–80%. According to the statistics of National Cancer Registry Programme, the five-year survival rate in India is only 7.5%. This makes early detection of lung nodules a major front of research in the war against lung cancer. Interstitial Lung Diseases (ILDs) are a complex group of disorders. Since High-Resolution Computed Tomography (HRCT) provides detailed information of the lung parenchyma and can delineate structures down to the level of the secondary pulmonary lobule, it is suitable for the detection of ILDs at an early stage. Therefore development of CBIR-based CDSS using features from nodule and different HRCT patterns will help the budding radiologist in differential diagnosis and prognosis of the disease.

In view of this predominant challenge of handling the clinical management of lung cancers, there have been several efforts across early screening to precise diagnostics and therapy. Along with them, we have seen a significant rise in the number of methods being proposed for imaging and image analysis based solutions to this epidemic. The objective of this special issue is to consolidate and collate such significant progresses that have been made towards accelerating newer techniques of clinical care delivery.

Potential topics include but are not limited to the following:

- ▶ Anatomical structure segmentation in lung
- ▶ Early detection and diagnosis of lung nodules
- ▶ Lung nodule classification
- ▶ Diagnosis of interstitial lung disease pattern
- ▶ Deformable/multimodal registration of lung image
- ▶ Early identification of tuberculosis and prognosis using imaging modalities like HRCT, X-ray imaging, and MRI
- ▶ Deep learning and machine learning based approaches for detection, identification, and diagnosis

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jhe/lia/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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