Thesis Title	RAPID CONE-BEAM SIMULTANEOUS ALGEBRAIC RECONSTRUCTION TECHNIQUE BY CLUSTERING SYSTEM
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Degree	Master of Engineering
Programme	Electronics Engineering
Year	2006
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ABSTRACT

An important problem in image processing is to construct a cross section of an object from several images of its trans-axial projection. However, the time consuming and the complexity of the reconstruction process are the crucial problems. In addition, the reconstruction process requires very high performance of the computer. Therefore, in this paper, a concept of parallel programming method is employed to speed up a Cone-Beam Simultaneous Algebraic Reconstruction Technique. The scheduling process in the clustering system is improved. The appropriate amount of work is distributed to each computer (node) in the clustering system using a round-robin algorithm scheduling scheme. Our proposed system works successfully with decreasing the reconstruction time up to 78 percent referred to the normal image reconstruction form projection performed on a single computer.