

Abstract

Tuberculosis is one of deadly disease which still be a problem around the world, especially the development countries. Indonesia have third place as the most TBC accident country. Goverment have to try to prevent this disease.

Additional tool to handling TBC case is by analyzing the X-ray from the suspect patient to establish a diagnosis. X-ray is used to knowing how far TBC infecting the normal body. But X-ray is still possible for overdiagnosis or underdiagnosis, depend on who observe this rontgen. So segmentation is used to avoid this problem. It's because image segmentation can make the observe more simple.

In this final exam, Markov Random Field is used to segmenting the X-ray image. MRF modeling the object in a probabilistic way. Segmentation is done by classify image pixels, depend on its parameter. MRF will be optimized using Iterated Conditional Modes (ICM) algorithm.

Keyword : *Segmentation, tuberculosis, Markov Random Field, Iterated Conditional Modes*

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