Finding Rois In Infrared Image Of Electrical Installation For Qualitative Thermal Condition Evaluation

Mohd Shawal Jadin, Kamarul Hawari Ghazali
Faculty of Electrical & Electronic Engineering Universiti Malaysia Pahang
26600 Pekan, Pahang, Malaysia mohdshawal@ump.edu.my, kamarul@ump.edu.my

Soib Taib, Nazmul Huda
School of Electrical & Electronic Engineering Universiti Sains Malaysia
14300 Nibong Tebal, Penang, Malaysia soibtaib@eng.usm.my, nhudaeee@yahoo.com

Abstract

This paper presents a method for automatically finding regions of interest (ROIs) in the infrared image of electrical installation. These regions are very important in diagnosing the thermal condition of electrical equipment. Even the selection of ROIs in the infrared image can be done manually, however the accuracy of the regions is arguably. So we take the advantage of extracting local features to identify, locate, and match multiple repeated objects and grouping look like similar objects in the images. Experimental results have shown that the proposed method achieves better performance for detecting the target ROIs with various irregular intensity variations, dim target equipments and cluttered background. The performance of the proposed and method is qualitative and quantitatively evaluated.