

PEMANFAATAN TEKNOLOGI INFRARED THERMOGRAPHY UNTUK DETEKSI DINI KEGAGALAN ISOLASI JARINGAN KABEL LISTRIK UNNES

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Author Order	1 of 3
Accreditation	
Abstract	<p>Various phenomena in the maintenance of electricity network things that need to be anticipated include fluctuations in load, vibration, metal damage, extreme environments such as high temperatures, wind, or chemicals. Even dirt or dust in the air can also increase the rate of damage and amount of damage in the power grid. To address these problems, maintenance strategies based on monitoring the condition of an equipment are implemented. Various conditions can be monitored for example vibration / vibration, temperature, performance, chemical condition, and others. One of the practical techniques that will be discussed in this paper is thermography techniques using infrared cameras. Objectives to be gained through this research are: 1) Establish appropriate strategy for maintenance of power grid with application of infrared thermography detection technology, 2) to know the temperature change level that happened at power grid when infrared thermography detection technology applied, 3) Preventive action of temperature monitoring results on the electrical grid after the results of Intrautromal Thermography detection analysis. Stages This research was conducted by infrared thermography method that is shooting with infrared camera on power line which is operating produce a temperature pattern on surface of an object. Equipment that decreased performance will produce an anomaly phenomenon. Through certain interpretations, the heat source that produces such temperature deviation patterns can be traced. By knowing the cause of temperature deviation as early as possible, repair or maintenance of an electrical component can be done long before the component fails. Thus the failure of components or even accidents that may arise can be prevented. The conclusions that can be in this research are as follows: 1) Based on the results of research that have been done the average working temperature of electrical equipment in the panel panel phase experience abnormal, which indicates that the condition of the equipment is not in the best condition, so need to be followed up with 2) By using infrared thermography technology the initial inspection process of maintenance becomes more effective and efficient in terms of time and cost, as well as the use of thermography technology in the maintenance of electricity networks is also quite practical and easy.</p>
Publisher Name	Universitas Negeri Semarang
Publish Date	2017-12-18
Publish Year	2017
Doi	DOI: 10.15294/saintekno.v15i2.12046
Citation	
Source	Saintekno : Jurnal Sains dan Teknologi
Source Issue	Vol 15, No 2 (2017): December 2017
Source Page	157-172
Url	https://journal.unnes.ac.id/nju/index.php/saintekno/article/view/12046/7088
Author	Dr. KARTONO, S.H., M.H