

**PARAMETRIC STUDY OF POSTS OF ELECTRICITY
ENERGY TRANSFORMATION THE BECHAR
COUNTRY (SOUTH WEST ALGERIA)**

A. Missoum^{*§}, A. Hamadou^{*}, M. Elmir^{*}

A. Belkacem^{*}, B. Draoui^{*}, O. Slimani^{*} and R. Belarbi^{**}

^{*} Laboratory of Energetique in Arid Zone ENERGARID, Bechar University,
Algeria.

^{**} Laboratory LEPTIAB La Rochelle University, France.

[§]Corresponding author. Fax: +0021349815244, Email: missoum101@yahoo.fr

ABSTRACT Electrical Energy is in a high demand throughout the year especially during the summer time when it is experiencing dizzying demand in south parts for the using of the air conditioning in buildings. For meeting that demand, several initiatives were taken including the multiplication transformation posts in neighbourhoods to avoid the problems of the electrical overload. It turns out that - they face to temperature gradients which may be influenced their uses.

In this context, the work aims are to analyze the thermal behaviour of the power transformers posts in the medium voltage to the low voltage. The analysis is performed by taking the measurements of the temperatures inside posts that located in the Algerian southern west cities especially Bechar. These cities are suffered in the summer periods, and stop using that generates which is the most critical situation in the terms of continuity and also the quality of service for the national society of the electricity and gas distribution (Sonelgaz).

For this purpose, a measure campaign in the collaboration with Sonelgaz in Bechar city was performed the hottest time in this case especially July of 2014. The Climate data external parameters were obtained by the station ENERGARID Laboratory at Bechar University, and the measures within the posts were made by the using of a micro station and also taking pictures with camera thermographs. This study has been able to develop more meaningful results.