

About a Matlab Graphical User Interface to Analyze Stresses During the Transient Regimes in the High Voltage Substations

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Abstract— In this paper is presented a Matlab graphical user interface useful to compute the thermal and dielectric stresses which means the parameters computation of the short circuit currents or transient recovery voltages which appear during the fault regimes in the high voltage networks. The analysis of the electrical stresses is carried out for the high voltage substations from ST Craiova. The Matlab GUI is developed starting from the automatic computation program which was realized within the research contract with the Transelectrica SA Branch Craiova. The results obtained within this contract were previously presented in the [2], [3], [4], [5]. The computation algorithm is based on the references in the field [6...12]. The GUI can be used for any other high voltage substation whose rated parameters are known.

Keywords— Matlab GUI, transmission line transients, electrical stresses

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