THE EFFECT OF SPLICE SHUNT ON THE MIDSPAN JOINT USED IN THE ACSR 250 CONDUCTOR ON THE ELECTRICAL AND MECHANICAL PROPERTIES

UNDERGRADUATE THESIS

Submitted as one of the requirements to obtain
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By

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FACULTY OF ENGINEERING

MECHANICAL ENGINEERING STUDY PROGRAM

CIKARANG

AUGUST 2023

TURNITIN TEST RESULTS

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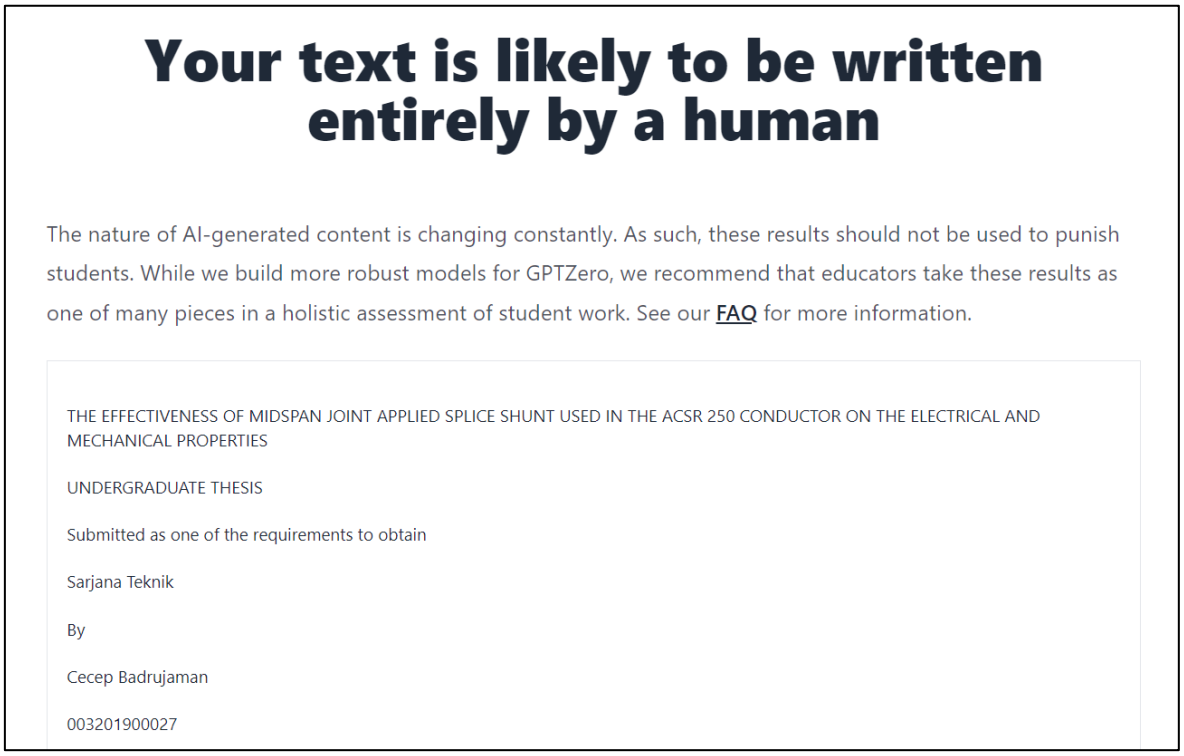

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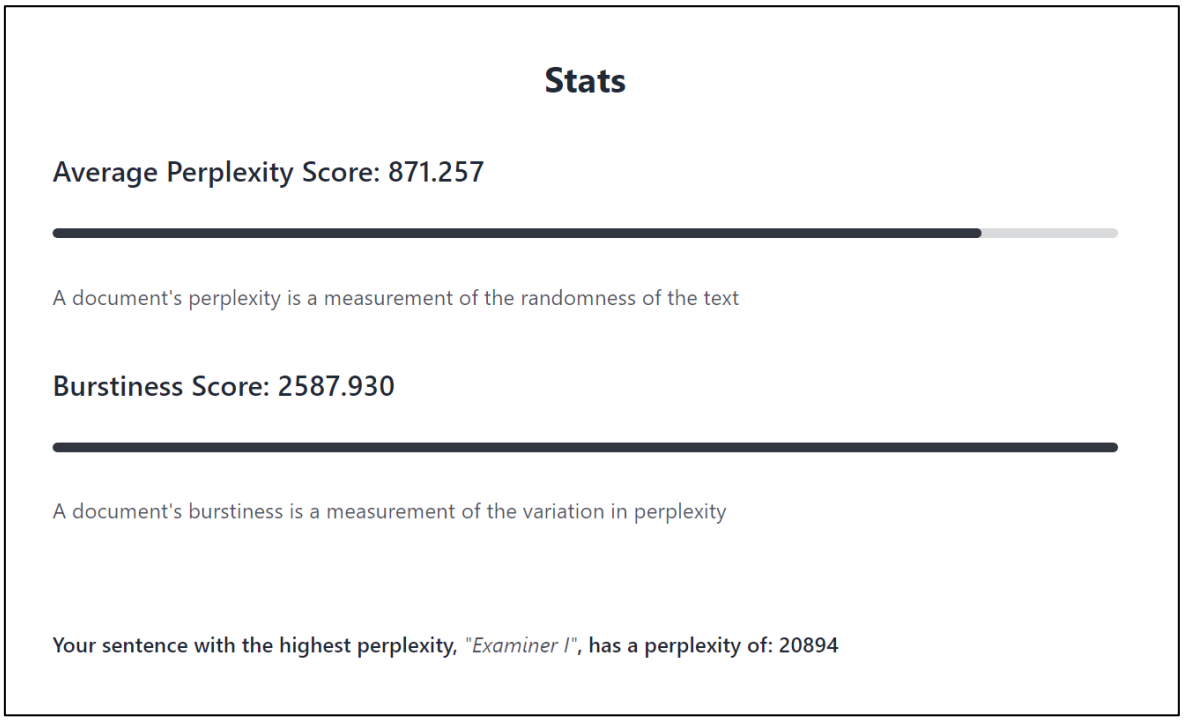

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ABSTRACT

Disturbances occur in the transmission system in the form of a decrease in quality in the midspan joint, this disturbance is a major disturbance that can result in company losses and electrical system failures. This research aims to analyze the comparison of electrical resistance, rated breaking strength, and mechanical strength of midspan joints. The research methods used include laboratory testing for electrical resistance measurement, RBS calculation, and tensile testing to determine the mechanical strength of the conductor. In this study entitled "The effect of splice shunt on the midspan joint used in the ACSR 250 conductor on the electrical and mechanical properties" it was found that the use of splice shunt on the midspan joint resulted in lower electrical resistance than the reference conductor resistance. In addition, RBS calculation shows that midspan joint with splice shunt has 39% higher mechanical strength than midspan joint without splice shunt.

Keywords: *Electrical resistance, Midspan joint, Splice shunt, ACSR 250 conductor, Rated breaking strength (RBS)*

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