Generative AI and Automated Writing Tools Usage Report

# Instructions

Please answer the bolded question below; a “yes” or “no” response is sufficient. If you have used one or more generative artificial intelligence (AI) or automated writing tools, please enter relevant details in the table below. For each automated writing tool that you have used, you must provide a complete account of how you have used it. For each **generative** AI tool that you have used, you must provide all input prompts that you have used *verbatim* and the corresponding AI generated outputs. You must also describe how you have used this output to help you complete the assignment in your own words in English.

For non-textual content and extended pieces of text (more than about 100 words), please include it in an appendix and refer to the appropriate appendix in the table below.

If needed, please add additional rows to this table.

If you have not used any AI tools at all, please leave the table blank. Please note that you must answer the question below regardless of whether you have used any generative AI / automated writing tool or not.

**Have you used any generative AI or automated writing tools?** \_\_Yes\_\_\_\_ (answer “yes” or “no” as appropriate)

(*table begins on next page*)

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Tool** | **Input Prompt**  **(required only for generative AI)** | **Output Prompt**  **(required only for generative AI)** | **Explanation** |
| ChatGPT | Fix the gramma mistake of following sentence “In this paper, the authors present an efficient deep learning–based algorithm for insulator fault recognition, aiming to improve detection accuracy and robustness against complex backgrounds. The step for this model is following: First, use Faster R-CNN is used to detect insulators from aerial images collected by drones, then fully convolutional networks (FCN-8s) perform accurate segmentation to separate insulators from complex backgrounds, lastly GoogLeNet with Inception modules classifies whether insulators are exploded. Comparing with previous algorithm, this paper's method has the lowest false detection rate and an average accuracy of 99.29\%, drastically improving the accuracy of insulator explosion recognition. This study is valuable for enhancing automated inspection efficiency and accuracy in power transmission systems, providing a robust framework that avoids manual feature design and threshold selection.” | In this paper, the authors propose an efficient deep learning–based algorithm for insulator fault recognition, aiming to improve detection accuracy and robustness in complex backgrounds. The method first applies Faster R-CNN to detect insulators from drone-collected aerial images, then uses fully convolutional networks (FCN-8s) for precise segmentation, and finally employs GoogLeNet with Inception modules to classify whether insulators are exploded. Compared with previous methods, this approach achieves the lowest false detection rate and an average accuracy of 99.29%, significantly enhancing recognition performance. The study provides a robust framework for automated inspection of power transmission systems, eliminating the need for manual feature design and threshold selection. | English is my second language, so I might need AI to help me better express my ideas. As you may notice, the edited version and the original one do not differ conceptually; the differences are only in grammar part.  I also use this strategy for other sentences, but it is too long for upload here, however, if you need, I can also provide.  I only use GPT to help me fix the gramma issue, I did not use it to generate content for this assignment. |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

**Note**: Please note that your use of generative AI and automated writing tools must be consistent with the requirements stated in your assignment. If any of your AI input prompts contain text from someone else, you must cite and reference the source(s) in your submission too.