Lab 5

Thevenin Equivalents of Lab Equipment

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1 Introduction

In this lab, the concept of Thevenin equivalents was explored, a powerful tool in electrical engineering used to simplify complex circuits. By representing a complex circuit as a combination of a voltage source and an impedance, circuit analysis became more manageable. This approach was particularly useful in systems such as ECG amplifiers or RF amplifiers in cell phones, where understanding the interaction between sub-circuits was essential for effective design and analysis. Through practical experiments, the Thevenin equivalents of lab equipment, such as oscilloscopes and signal generators, were determined, using measurement techniques like voltage division to calculate key parameters, including Thevenin voltage and resistance. By the end of the lab, insights were gained into how simplified models enabled the design and analysis of complex systems with greater ease.

2 Results

3 Discussions and Conclusions

4 References

[1] Dr. Iman Salama. "Lab 5 – Thevenin Equivalents of Lab Equipment" Northeastern University. 11 October 2024.