Lab Report: LaTeX Test with IEEEtran

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Abstract—This is a sample abstract for a lab report using the IEEEtran class with modern fonts. You can type Unicode symbols like Ω, µ, or without warnings.

Index Terms—lab, experiment, IEEEtran, LuaLaTeX, fonts

I. Introduction

This template is based on the official IEEEtran class but updated to use newtxtext and newtxmath for full font support. The measured voltage was 5.0 V and the current was 2.3 mA.

The resistor has a value of 10 kΩ.

The frequency of the signal is 1.2×10^3 Hz.

The length of the sample is (12.3 ± 0.1) cm

The acceleration is $9.81\,\mathrm{m/s^2}$.

$$V = I\,R \tag{1}$$

$$P = \frac{V^2}{R} = \frac{5\,\mathrm{V}^2}{10\,\Omega} = 2.5\,\mathrm{W} \tag{2}$$

II. Materials and Methods

Describe apparatus, measurement setup, and procedure here.

III. Results

Insert figures and tables as needed.

IV. Discussion

Interpret results and analyze sources of error here.

V. Conclusion

Summarize findings and lessons learned here.