

ECE 2270 Lab 3 Formal Report Grade Breakdown

Communications:

/5 Organization (ease of locating figures/code/additional info)
/5 Clarity of style (ease of reading, and etc.)
/3 English (grammar, punctuation, and etc.)
/3 Introduction
/3 Figure titles and numbers
/4 Equations explained (at least one sentence between equations)
/3 Matlab explanations (see page 7, 2c of lab 1 handout)
/4 Explain how V_o and V_l produce a double spiral
/30 Total = ABET g score (enter separately on gd sheet)

Component Measurements:

-10 if completely ignored, including in Matlab
-5 if not mentioned in report, but included in Matlab calculations
-2 if in report (appendix) but not referenced or easily found
/10 Total

Circuit Design:

/4 Transformation to s domain (include initial cond)
/2 Determine $I(s)$ from circuit
/2 Determine $V_o(s)$ and $V_l(s)$
/2 Inverse transform $V_o(s)$ and $V_l(s)$ to time domain
Circuit parameters:
/2 $\Psi = \pm 90$ degrees
/4 $a = b$ including comments if algebraic solver used
/1 $1/\alpha \geq T$
/3 Matlab plots of double spiral
/20 Total

Measurements:

/4 Real spirals plots (dlmread)
Measurements and derivations:
/3 α
/2 β
/4 a
/2 b
/2 c
/3 ψ
/20 Total

Comparison:

/3 Plot calculated and measured $V_o(t)$ and $V_l(t)$ vs. t on same axes
/2 Explain differences
/4 Plot calculated and measured spirals
/1 Explain
/5 Compare calculated and measured α , β , a , b , c , and ψ ,
and explain differences
/15 Total

Conclusions:

/1 Validity of Models (Inductor model, etc.)
/1 Effectiveness of analysis procedure and methods
/3 Discretion of TA for good conclusion
/5 Total

/70 Grand Total (without communication score)