

ELEE 3720  
ELECTROMECHANICAL ENERGY CONVERSION  
HOMEWORK/ASSIGNMENT No:-

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**TITLE**

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UNIVERSITY OF  
**DETROIT  
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## Grading Rubric - Information to Students

Grading rubric that will broadly apply to assessing performance. That is, assessment exercises that are associated with a predominantly qualitative rather than quantitative character. If, for a particular exercise, there is substantial deviation from the scheme outlined below, I will let you know! Note: Be aware that if your “Quality of Presentation” is poor, it could impact scores assigned for the other two categories! (DO NOT EDIT THIS PAGE)

		Level of accomplishment					
		0	1	2	3	4	5
Aspect of effort	Extent of Completion of Technical Requirements	Achieved none of the objectives or did not submit	Achieved very few of the objectives	Achieved some of the objectives	Achieved most of the objectives	Achieved almost all the objectives	Demonstrated additional initiative beyond what was required.
	Quality of Analysis & Conclusions	Inadequate	Poor	Below average	Average	Good	Insightful!
	Quality of Presentation	Inadequate	Poor	Below average	Average	Good	Exceptional!

Figure 1: Level of accomplishments

Level	Score
5	12 (bonus!)
4: ('A')	10
3: ('B')	8
2: ('C')	6
1: ('D')	4
0: ('F')	0-2

Table 1: Mapping of “Level” to “Score”

- Student’s Level/Score (To be entered by Professor/GTA):

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# 1 Abstract

Your abstract goes here!

# 2 Introduction

- List and provide a brief explanation of the goals of the homework. Use your own words instead of directly copying from the homework problem statement!

# 3 Methodology

This section should be dedicated to explaining the 'theoretical know-how' or 'steps to run your code' or 'algorithms used'.

The following are guidelines. Use your judgment appropriately

1. Explain your approach to solving this homework assignment (theoretical know-how)
2. Which concepts from the class did you apply in this homework? How did you apply them? State the assumptions made, including the reason for assumptions.
3. Are there any special steps that should be followed to run/simulate your program/files on other computer, with necessary software (MATLAB/MULTISIM)?
4. Explain the main parts of your algorithm with the help of a flowchart, if appropriate. What does each section of it do?

Note:

- In MATLAB, Lines of comment embedded in the program are essential. However, comments cannot be used as a substitute for the algorithm explanations asked for above!
- Remember, these questions are just examples to guide you in explaining your methodology. You may not need to answer all of them in all homework assignments. You may need to add more information in a particular report. Use your judgment appropriately!

## 4 Results

- The results obtained should be placed here. Attach the screen shots (with description labels) from your simulation to show the schematic circuit, static/transient response, other results, as per the homework/assignment. Also, if something unexpected happened (errors/issues), attach screen shot (with description labels). Use graphs when appropriate to demonstrate results.

## 5 Discussions and Conclusion

Finally, discuss your results and state your conclusions on the task you were given in this homework.

1. Did you meet the goals of this homework?
2. What was the key elements of theoretical know-how taken into consideration ?
3. If there is any errors/issues, what do you think about this error/issue? How can you do to fix it?
4. If your simulation/calculation works mostly as expected, but fails in some scenarios, what do you think or state the possible reasons, try to propose a solution?
5. What are the limitations of your code/simulation?
6. Make a comment about how this homework affected your knowledge of the subject.

## References

- [1] George Grätzer. *More math into latex*. Springer Science & Business Media, 2007.

# A Appendix

Include your code here!

**Note: Also ensure to attach the MATLAB or MULTISIM files with this report.**

## B Example steps

### B.1 Sub Sections

Use section and subsection commands to organize your document.  $\LaTeX$  handles all the formatting and numbering automatically. Use `ref` and `label` commands for cross-references.

### B.2 Comments

Comments can be added to the margins of the document using the `todo` command, as shown in the example on the right. You can also add inline comments too:

This is an inline comment.

Here's  
a com-  
ment  
in the  
mar-  
gin!

### B.3 Tables and Figures

Use the `table` and `tabular` commands for basic tables — see Table 2, for example. You can upload a figure (JPEG, PNG or PDF) using the files menu. To include it in your document, use the `include graphics` command as in the code for Figure 2 below.

Item	Quantity
Widgets	42
Gadgets	13

Table 2: An example table.

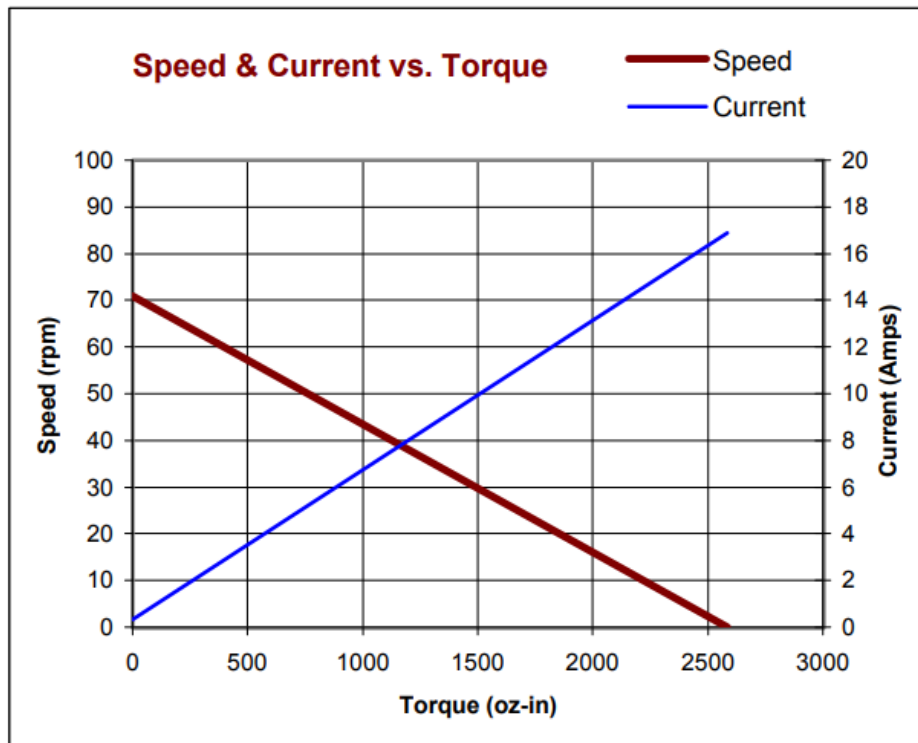


Figure 2: Speed vs. Torque from Pittman motor data sheet

## B.4 Mathematics

L<sup>A</sup>T<sub>E</sub>X is great at typesetting mathematics. Let  $X_1, X_2, \dots, X_n$  be a sequence of independent and identically distributed random variables with  $E[X_i] = \mu$  and  $\text{Var}[X_i] = \sigma^2 < \infty$ , and let

$$S_n = \frac{X_1 + X_2 + \dots + X_n}{n} = \frac{1}{n} \sum_i^n X_i$$

denote their mean. Then as  $n$  approaches infinity, the random variables  $\sqrt{n}(S_n - \mu)$  converge in distribution to a normal  $\mathcal{N}(0, \sigma^2)$ .

## B.5 Lists

You can make lists with automatic numbering ...

1. Like this,

2. and like this.

...or bullet points ...

- Like this,
- and like this.

## **B.6 Bibliography**

- Adding bibliography to document Some claim [1].

## **B.7 Hyperlink to a website**

- Hyperlink to a website.

## **B.8 Learn LaTeX in 30 minutes**

- Link to overleaf website.