

Form C1: Graduate Mechatronics Engineering Program
American University of Sharjah
Master's Degree Requirements Tracking Form (Project Option)

Name: _____ Date Admitted: _____

BS degree Field: _____

Project Advisor: _____

Project Committee Members: _____

Project Title: _____

Project Prospectus Submitted (enter date): _____

Course Work

Degree prerequisite courses		Course	Term Taken	Grade
1	Applied Electrical and Electronics Systems (MTR 505) ¹			
2	Applied Mechanical Systems (MTR 510) ²			
3	Information Technology for Mechatronics (MTR 515) ³			

Required:	Course	Term Taken	Grade
Advanced Engineering Mathematics (MTR 500)			
Embedded Systems for Mechatronics (MTR 520)			
Modeling and Simulation of Dynamic Systems (MTR 600)			
Advanced Digital Signal Processing and Control System (MTR 605)			
Mechatronics Seminar (MTR 695)			

Electives:	Course	Term Taken	Grade

Project Work: _____ **Credits**
 Mechatronics Design-I (MTR 590) _____
 Mechatronics Design-II (MTR 691) _____

¹ This course to be taken by all engineers except electrical engineers
² This course to be take by all engineers except mechanical engineers
³ This course to be taken by all engineers except computer engineers

Form C2: Graduate Mechatronics Engineering Program American University of Sharjah

Master's Degree Requirements Tracking Form (Thesis Option)

Name: _____ Date Admitted: _____

BS degree Field: _____

Thesis Advisor: _____

Thesis Committee Members: _____

Thesis Topic: _____

Thesis Prospectus Submitted (enter date): _____

.....
Course Work

	Degree prerequisite courses	Course	Term Taken	Grade
1	Applied Electrical and Electronics Systems (MTR 505) ⁴			
2	Applied Mechanical Systems (MTR 510) ⁵			
3	Information Technology for Mechatronics (MTR 515) ⁶			

Required:	Course	Term Taken	Grade
Advanced Engineering Mathematics (MTR 500)			
Embedded Systems for Mechatronics (MTR 520)			
Modeling and Simulation of Dynamic Systems (MTR 600)			
Advanced Digital Signal Processing and Control System (MTR 605)			
Mechatronics Seminar (MTR 695)			

Electives:	Course	Term Taken	Grade

Thesis Work:

MTR 699

MTR 699

Credits

⁴ This course to be taken by all engineers except electrical engineers

⁵ This course to be take by all engineers except mechanical engineers

⁶ This course to be taken by all engineers except computer engineers



**Graduate Mechatronics Engineering Program
School of Engineering
American University of Sharjah**

***INTELLIGENT OPTIMIZATION OF SILICON
MANUFACTURING PROCESSES***

**Thesis Proposal for Master of Science in Mechatronics
Engineering**

Submitted by:
Student Name

Supervised By

Dr. Hasan Al-Nashash
Dr. Yousef Al-Assaf

March, 10, 2004

ABSTRACT

The double spaced text of the abstract begins here. The abstract should identify clearly and succinctly the purpose of the research, the methods used, the initial results obtained and the significance of the results or findings. The abstract must not exceed 350 words.

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BACKGROUND AND SIGNIFICANCE

CHAPTER 1 is the Heading 1 style, which moves the title of the chapter down from the top of the page 1 inch and ensures the correct capitalization along with the font format. Use this style for each chapter number. The Chapter Title style positions your chapter title in the correct position.

Heading 2

The heading 2 uses the formatting style for the first level heading. The text after that is Body Text.

Another Heading 2

Another heading 2 uses the formatting style for the first level heading. Text style after first level heading is Body Text.

Heading 3

Above heading uses Heading 3 formatting style. Text style after second level heading is Body Text 2.

Heading 4

Above is Heading 4 style. Text style after this is Body Text 3

PROPOSED METHODOLOGY

CHAPTER 2 is the Heading 1 which moves the text down from the top of the page, 1 inch and ensures the correct capitalization along with the font format. Use this style for each chapter no. The Chapter Title style positions your chapter title in the correct position.

Heading 2

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Another Heading 2

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Heading 3

Above heading uses the formatting style Heading 3. Text style after second level heading is Body Text 2.

Heading 4

Above is Heading 4 style. Text style after this is Body Text 3

Equations

All equations in the text must be written using the equation editor and the must be numbered using caption ((Insert>Reference> (...)) along with each variable defined in the text.

$$\frac{R_{t_2}}{R_{t_1}} = \frac{M + t_2}{M + t_1} \quad (0.1)$$

Where,

R_{t_2} = DC resistance at ant temperature t_2 °C

R_{t_1} = DC resistance at ant temperature t_1 °C

M = a constant for any type of conductor material

Use cross reference utility of Microsoft word to cross reference your equations, figures, tables, and references in the text. This will save you the hassle of revising them if you rearrange them later. They will be automatically updated if you cross reference them

Specific objectives and deliveries

Delivery 1

Delivery 2

....

Budget Requirements

Requirement 1

Requirement 2

....

INITIAL RESULTS

CHAPTER 3 is the Heading 1 which moves the text down from the top of the page, 1 inch and ensures the correct capitalization along with the font format. Use this style for each chapter no. The Chapter Title style positions your chapter title in the correct position.

Heading 2

The heading 2 uses the formatting style for the first level heading. The text after that is Body Text.

Lists

Below is a format for bulleted lists;

- Use the paragraph styles mentioned in the format.
- Don't make any changes in the paragraph styles unless you are clear about what you intend to do.
- Heading levels must be used in the order listed above. Levels must be ordered consistently from chapter to chapter.
- Do not underline the chapter number or the chapter title.

Tables and Figures

Every Table and Figure in the report must have a caption (Insert > Reference> Caption) and be aligned in the centre. Examples are below

Table 0-1 Maximum conductor resistance of PILC cables at 20°C, ohm/km

Cable Cross Section mm ²	Copper	Aluminium
400	0.0470	0.0778
240	0.0754	0.125
185	0.0991	0.164
95	0.193	0.320
50	0.387	0.641
35	0.524	0.868

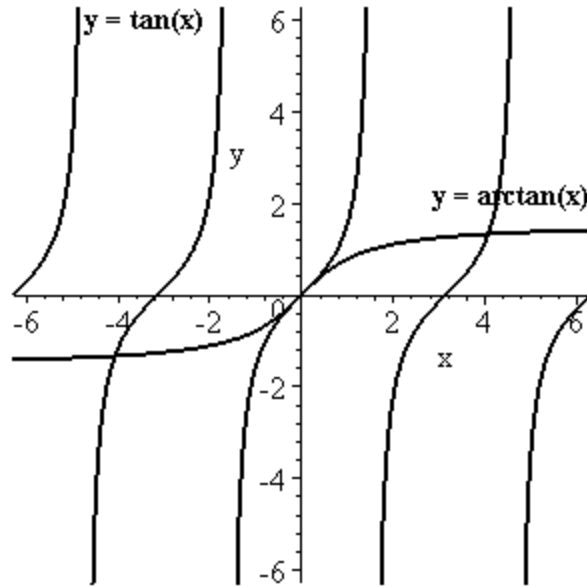


Figure 0-1 Plots of $\tan(x)$ and $\arctan(x)$

REFERENCES

It is important to give credit to other people and this is done by citing their papers and articles as references. Below are some formats for references. For further details see IEEE Guidelines for Authors at www.ieee.org.

Books:

- [1]. G. O. Young, "Synthetic structure of industrial plastics," in *Plastics*, 2nd ed., vol. 3, J. Peters, Ed. New York: McGraw -Hill, 1964, pp. 15–64.

Periodicals:

- [2]. J. U. Duncombe, "Infrared navigation—Part I: An assessment of feasibility," *IEEE Transactions on Electron Devices*, vol. ED-11, pp. 34–39, Jan. 1959.
- [3]. E. H. Miller, "A note on reflector arrays," *IEEE Transactions on Antennas Propagation*, to be published.

Articles from Conference Proceedings (published):

- [4]. D. B. Payne and J. R. Stern, "Wavelength-switched passively coupled single-mode optical network," in *Proc. IOOC-ECOC*, 1985, pp. 585–590.

Standards/Patents:

- [5]. G. Brandli and M. Dick, "Alternating current fed power supply," U.S. Patent 4 084 217, Nov. 4, 1978.

Technical Reports:

- [6]. E. E. Reber, R. L. Mitchell, and C. J. Carter, "Oxygen absorption in the Earth's atmosphere," Aerospace Corp., Los Angeles, CA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1968.

References—Electronic Sources

- [7]. R. J. Vidmar. (1992, Aug.). "On the use of atmospheric plasmas as electromagnetic reflectors" *IEEE Trans. Plasma Science*. [Online]. 21(3), pp. 876–880.
Available:<http://www.halcyon.com/pub/journals/21ps03-vidmar>

TITLE OF APPENDIX A