Title of Your Thesis

Final Report

Your Name
Center for Imaging Science
Rochester Institute of Technology
May 2005

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This report is accepted in partial fulfillment of the requirements of the course 1051-503 Senior Research.

Title: Your thesis title.
Author: Your name
Project Advisor: Your advisor's name
1051503 Instructor: Joseph P. Hornak
Title of Your Thesis

Your Name

Center for Imaging Science
Rochester Institute of Technology
Rochester, NY 14623-5604

Date

Abstract

This section should contain a 100 to 200 word advertisement of your thesis. The abstract should concisely describe the salient hypotheses, procedures, results, and conclusions presented in your research. If you have done it correctly, your abstract should address the following five questions. Why was the research performed? What was done or known previously? What did you attempt and accomplish? What can be concluded from your results? See any abstract in the scientific literature as an example.

Acknowledgement(s)

You may acknowledge financial support for your thesis from a funding agency or person; our advisor; and help of a friend, parent, or spouse in this section. This section is optional.
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### Table of Symbols and Abbreviations

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<tr>
<td>A</td>
<td>Anterior</td>
</tr>
<tr>
<td>Å</td>
<td>Angstrom (10^{-10} meters)</td>
</tr>
<tr>
<td>$B_0$</td>
<td>Static magnetic field</td>
</tr>
<tr>
<td>$B_1$</td>
<td>The radio frequency magnetic field</td>
</tr>
<tr>
<td>C</td>
<td>Contrast</td>
</tr>
<tr>
<td>CW</td>
<td>Continuous wave</td>
</tr>
<tr>
<td>E</td>
<td>Energy</td>
</tr>
<tr>
<td>FID</td>
<td>Free induction decay</td>
</tr>
<tr>
<td>FT</td>
<td>Fourier transform</td>
</tr>
<tr>
<td>$G_{\text{bp}}$</td>
<td>Bipolar magnetic field gradient</td>
</tr>
<tr>
<td>ADC</td>
<td>apparent diffusion coefficient</td>
</tr>
<tr>
<td>AST</td>
<td>arterial spin trapping</td>
</tr>
<tr>
<td>BOLD</td>
<td>blood oxygenation level-dependent contrast</td>
</tr>
<tr>
<td>CSI</td>
<td>chemical shift imaging</td>
</tr>
<tr>
<td>DWI</td>
<td>diffusion weighted imaging</td>
</tr>
<tr>
<td>EPR</td>
<td>electron paramagnetic resonance</td>
</tr>
<tr>
<td>ESR</td>
<td>electron spin resonance</td>
</tr>
<tr>
<td>MR</td>
<td>magnetic resonance</td>
</tr>
<tr>
<td>MRS</td>
<td>magnetic resonance spectroscopy</td>
</tr>
<tr>
<td>PRESS</td>
<td>point resolved spectroscopy</td>
</tr>
<tr>
<td>SI</td>
<td>spectroscopic imaging</td>
</tr>
<tr>
<td>STEAM</td>
<td>stimulated echo acquisition mode</td>
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**Introduction**

This section will introduce the problem and project. This section should have the most number of references. References should be handled in the following way. In your text define a reference with either a number like this (1) or a superscript,\(^1\) or a name and year (Smith, 2003). If Smith has two publications in 2003 you referenced, use 2003a and 2003b. Note that the references are used in order and if a reference is referred to a second time, the same number is used (if using numerical format).

**Background**

This section will be very similar to your proposal, provided you have not changed the direction of your thesis.
Theory
This section contains any theory you had to derive or feel the reader should know in order to appreciate your results. Some theses will require a theory section and others will not. Those that do not usually have related material in the background section.

Theory Part 1

Theory Part 2

Experimental Methods
This section contains the major experimental procedures you used to test your hypothesis. It will have diagrams for any special instrumentation you used.

Experimental Methods Part 1

Experimental Methods Part 2

Experimental Methods Part 3
Results
This section should contain the results or data you obtained from your research. Please use include a discussion of the errors associated with your results and the certainty of your results. For example, write the transmittance is 0.75 +/- 0.01 not just 0.75.

Results Part 1

Results Part 2

Results Part 3

Discussion
You want to discuss each of the results you obtained and their significance. Do they support your thesis or not? Relate these to the background section and state how your results advanced the knowledge of the field. Discuss possible sources or errors in your results.
Conclusions
Conclusions from your research.

References

4. L.M. Fletcher, J.B. Barsotti, J.P. Hornak, Multispectral Brain Tissue Classification, 11th Annual Meeting of The Society for Magnetic Resonance in Medicine, Berlin, Germany, August 1992.

For referencing by name, list alphabetically by first author’s last name.
Appendix A – Title of this appendix.

An appendix usually contains information you would not wish to include in the text because some readers may not be interested in the detail. This might include a mathematical derivation or computer code.