SPECIMEN OF A RESEARCH PAPER

Specimen of a Research Paper

The following is a suggested format for your course-related research or term paper. The general guidelines are followed by sample title pages.

Page 1   Title page should contain all of the following (see the sample title pages below):

Title of paper: max 20 words (make it short, yet descriptive); avoid abbreviations

Name of author

Telephone number(s) and e-mail address for quick contact in case of questions

"Research Paper for ECE x", where x is the course number (252B, 254B, etc.)

Course name

Quarter and year (e.g., "Winter 2020")

"ABSTRACT"

Body of abstract (summary of contributions and/or results; approx. 1 line per page)

"*Keywords:*" followed by 5 to 10 keywords and key phrases describing the content

Pages 2–k "1. INTRODUCTION"

Give background on the topic (provide context and include references on prior work), justify your interest in the topic, prepare the readers for what they will find in later sections, and summarize (in a few sentences) your main findings and/or contributions. This section must be kept short. If it exceeds, say, 3 pages, you may wish to break it up by including an additional section that covers the *necessary* details for one or more of the above aspects. Use a descriptive title such as "2. REVIEW OF PRIOR WORK" or "2. NOTABLE APPLICATIONS OF ... " for this section.

Pages (k+1)–l

Body of the paper (10-20 pp. is considered reasonable) should consist of sections dealing with various aspects of the investigation as appropriate; e.g., theory, applications, design issues, tradeoffs, evaluation, experiments, comparisons with other methods or approaches. Don't be afraid to compare, criticize, and generally leave your personal mark on the paper. There is no general rule, except that subdivisions must be coherent and of reasonable length. Avoid the extremes of single-paragraph and 10-page sections. For very long sections, consider dividing up or moving some details to an appendix. If you present performance or speed-up comparisons for your ECE 254B research paper, then make sure to read:

Crowl, L.A., "How to Measure, Present, and Compare Parallel Performance", *IEEE Parallel & Distributed Technology* (now *IEEE Concurrency*), Vol. 2, No. 1, pp. 9-25, Spring 1994.

Pages (*l*+1)–*m*

"*q*. CONCLUSION"

Give a brief summary (in a few sentences) of what has been presented and/or accomplished. Emphasize the advantages and disadvantages of the proposed approach, technique, or design. Discuss possible extensions of the work and any interesting/open problem that you can envisage. Like the INTRODUCTION, this section must be fairly short.

Pages (*m*+1)–*n*

"REFERENCES"

Provide complete bibliographic information for each reference (see any paper in *IEEE Trans. Computers* for examples). As a rule of thumb, citing 5-20 references is reasonable; review or survey-type papers tend to have much more extensive bibliographies and original contributions breaking new ground may have fewer references. However, don't take this rule too seriously.

Figures/Tables

If possible, include each figure or table close to where it is first referenced in the text. Figures and tables must be numbered and have descriptive captions. Elements of figures (boxes, curves, axes) and tables (columns and/or rows) must be clearly labeled, with units shown where appropriate. Do not copy/paste figures or tables from books, journals, or conference papers.

Special Notes

I will keep all submitted papers and will return to you my comments on a separate sheet or in an e-mail message. Please make a copy for yourself before submitting. Plagiarism, in any form (outright copying or failure to properly credit ideas), will not be tolerated and will result in a failing grade.

There are many good references to help you with research methodology and technical writing. The following book, which covers writing techniques, research methods, refereeing, and oral presentations is particularly recommended.

Zobel, J., *Writing for Computer Science*, Springer, 2nd ed., 2004. [T11.Z62 2004]