

# Survey Title

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**Abstract**—Put the abstract of your survey here \*CRITICAL: Do Not Use Symbols, Special Characters, Footnotes, or Math in Paper Title or Abstract.

## I. INTRODUCTION

General introduction to the area with motivation on the importance and applications. Links to the broader research area(s) indicated on the comprehensive exam application form.

Quick summary of the evolution of the area over the years. Cite seminal works.

Indicate various publication venues where the articles on this topic typically appear (list important journals and conferences in the area).

Summary of the contributions and organization of your paper.

## II. PRELIMINARIES

Here, introduce the basic concepts, notations, and models that a computer scientist should know in order to follow the rest of the paper, even if they are working in a different area.

Define abbreviations and acronyms the first time they are used in the text.

## III. AREA TAXONOMY

Here, provide the taxonomy of the research works based on your readings.

Taxonomy is the science of classification. It is the systematic arrangement of methods and systems used in the area. A common way to graphically represent the taxonomies is hierarchies, e.g., trees of features.

See more details and pointers about taxonomies in the *PhD CS Comprehensive Exam Written Component*.

## IV. TAXONOMY-BASED SURVEY

Now use the taxonomy from the previous section to organize your description of main work in the area. No academic publication is perfect; so you should discuss both the strengths and weaknesses/shortcomings of the articles you surveyed, based on your critical reading.

## V. OPEN PROBLEMS

This is an important part of your written exam where you will convey your own ideas about the most important and pressing open problems in the area, with justification.

## VI. CONCLUSIONS

Brief statement on the conclusions from your survey. An excellent style manual for science writers is [7].

## ACKNOWLEDGMENT

This document is based on the IEEE Conference Template available at <https://www.ieee.org/conferences/publishing/templates.html>.

## REFERENCES

Please number citations consecutively within brackets [1]. The sentence punctuation follows the bracket [2]. Refer simply to the reference number, as in [3]—do not use “Ref. [3]” or “reference [3]” except at the beginning of a sentence: “Reference [3] was the first . . .”

Unless there are six authors or more give all authors’ names; do not use “et al.”. Papers that have not been published, even if they have been submitted for publication, should be cited as “unpublished” [4]. Papers that have been accepted for publication should be cited as “in press” [5]. Capitalize only the first word in a paper title, except for proper nouns and element symbols.

For papers published in translation journals, please give the English citation first, followed by the original foreign-language citation [6].

## REFERENCES

- [1] G. Eason, B. Noble, and I. N. Sneddon, “On certain integrals of Lipschitz-Hankel type involving products of Bessel functions,” *Phil. Trans. Roy. Soc. London*, vol. A247, pp. 529–551, April 1955.
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- [4] K. Elissa, “Title of paper if known,” unpublished.
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- [7] M. Young, *The Technical Writer’s Handbook*. Mill Valley, CA: University Science, 1989.