DOCUMENTING SOURCES: THE IEEE FORMAT

What is the IEEE format?

The IEEE documentation style is set out by the Institute of Electrical and Electronics Engineers; it is widely used in fields such as electrical and computer engineering. For more information, or to order a copy of the *IEEE Information for Authors* packet, please see http://www.ieee.org/organizations/pubs/transactions/information.htm

What sources must be documented?

In academic writing, you must cite sources for all borrowed information and ideas, including research findings, information, and ideas that you've put into your own words. Do not, however, document statements that present common knowledge or generally known facts. If in doubt, cite your source.

What does documentation of a source consist of?

Complete IEEE documentation consists of two elements:

- a numbered reference citation in square brackets in the body of the paper at the point where you've incorporated information from a source, and
- an entry in your reference list giving complete publication information for the source.

Examples of in-text citations and reference list entries are included below.

1. Examples of brief references to research or paraphrased information or ideas:

Accident rates are not affected by the synchronization of traffic lights [1], [5].

Several studies, for example [1], [3], [5], have established that the synchronization of traffic lights has no effect on accident rates.

According to the Parks and Recreation director for the City of Megalopolis, most cyclists would agree to pay extra taxes to support extension of bike paths in the city [6].

Failure to document sources may be considered a breach of professional ethics [12].

- The first source you cite in your paper should be numbered [1]; subsequent references to this source will also be numbered [1]. The second source cited should be numbered [2], etc.
- Normally, you would not mention the year of publication or the author's name in your text.
- When a reference ends a sentence, include the end punctuation after the closing parenthesis.

2. Quoted material:

According to Reynolds, "no reliable studies have established such a correlation" [3:16].

- If you take wording directly from a source, you must enclose the quoted words within quotation marks; if you retain the original sentence structure and substitute words here and there without using quotation marks, you are guilty of plagiarism, whether or not you cite the source.
- Unless there is a compelling reason to quote a source, paraphrase the information and provide an in-text reference. When quoting, you should probably include a page reference after a colon within the in-text reference as shown above; while the *IEEE Information for Authors* kit does not explicitly advise writers to do this, providing a page number is standard practice in other numbered documentation styles.
- Keep quoted passages as brief as possible; use an ellipsis (three spaced dots) to indicate words left out of a quotation, and use square brackets to indicate words that you've added to clarify quoted material.

Formatting an IEEE Reference List

- **Page heading:** On a new page, type **References**, centred at the top of the page, as shown in the example below.
- **What to include:** Include entries for all sources cited in your paper.
- **Order of entries:** Arrange entries in numerical order in an indented list, from 1 on, with 1 referring to the first source cited in the body of your paper, etc.
- **Line spacing:** Single-space entries, with an extra line between entries.
- **Authors' names:** Use authors' initials rather than full first names. If a source has more than six authors, cite the first author followed by et al. (meaning "and others").
- **Caps & italics:** Capitalize all key words in the titles of journals and books, but only the first key word in article titles. Italicize titles of newsletters, newspapers, magazines, books, and journals--but not of book chapters or articles in journals, etc. Enclose article titles within quotation marks.
- **Page numbers:** Include inclusive page numbers for all articles.

Sample IEEE reference list entries

Book (or brochure):

[4] P. Sax and R.Gordon, *Traffic Light Automation: Planning for Optimal Outcomes.* Toronto: Fisher Press, 1994.

Article or chapter in an edited book:

[5] E. P. Wright, "Traffic simulation programs: An evaluation," in *Tools for Traffic Analysis*, 2nd ed., R. Sundeen, Ed. New York: McGraw-Hill, 1998, pp. 28-45.

Journal article:

[3] J. X. Reynolds, "A meta-analysis of traffic light synchronization studies," *Traffic Studies,* vol. 5, pp. 68-95, Dec. 1998.

Technical report:

[2] Proton Engineering, "Evaluation of traffic light synchronization in 10 major U.S. cities," National Traffic Institute, Chicago, IL, Tech. Rep. RYX-301, Nov, 1995.

Article in a daily newspaper:

[14] J. Brown, "Crowchild Interchange to cost $5 million." *Calgary Herald*, March 17, 1999, p. B2.

Conference presentation (unpublished):

[13] R. Brent and C. Saski, "Digital processing for traffic synchronization," presented at the Conference of Traffic Engineers, Vancouver, BC, 1998.

Personal communications (conversations, e-mail, or letters):

[6] Ron Jones, (personal communication), April 10, 1999.

Course lectures:

[12] J. Jordan. ENGG 513. Class lecture "Ethics." Faculty of Engineering, University of Calgary, Calgary, Alberta, Jan. 10, 2001.

On-line sources:

[1] City of Megalopolis. (1999, June 20). [Online]. Traffic lights: Questions and answers. Available: www.megalopolis.traffic.htm April 10, 1999 [date accessed]

[11] R. Carsk. (2001, May). Signal processing times in optimal traffic control systems. *Journal of Control Systems.* [online]. *2(3),* pp. 212-224. Available: http://www.jcs.com/pub/journals/htm

- Begin with the author(s) of the source; if no author is given, move the title to the author slot.
- If no publication date is available, write "n.d." (for no date) where the date would go.
- For on-line sources other than journal articles, include the date of retrieval.

Sample IEEE reference page:

REFERENCES

[1]	City of Megalopolis. (1999, June 20). [Online]. Traffic lights: Questions and answers. Available: www.megalopolis.traffic.htm April 10, 1999 [date accessed]	**Web site**
[2]	Proton Engineering, "Evaluation of traffic light synchronization in 10 major U.S. cities," National Traffic Institute, Chicago, IL, Tech. Rep. RYX-301, Nov, 1995.	**Technical report**
[3]	J. X. Reynolds, "A meta-analysis of traffic light synchronization studies," *Traffic Studies,* vol. 5, pp. 68-95, Dec. 1998.	**Journal article**
[4]	R.Gordon and P. Sax, *Traffic Light Automation: Planning for Optimal Outcomes.* Toronto: Fisher Press, 1994.	**Book**
[5]	E. P. Wright, "Traffic simulation programs: An evaluation," in *Tools for Traffic Analysis*, 2nd ed., R. Sundeen, Ed. New York: McGraw-Hill, 1998, pp. 28-45.	**Book chapter**
[6]	Ron Jones, (personal communication), April 10, 1999.	**Personal com-munications**
. . .		
[11]	R. Carsk. (2001, May). Signal processing times in optimal traffic control systems. *Journal of Control Systems.* [online]. *2(3),* pp. 212-224. Available: http://www.jcs.com/pub/journals/htm	**Online journal article**
[12]	J. Jordan. ENGG 513. Class lecture "Ethics." Faculty of Engineering, University of Calgary, Calgary, Alberta, Jan. 10, 2001.	**Course lecture**
[13]	R. Brent and C. Saski, "Digital processing for traffic synchronization," presented at the Conference of Traffic Engineers, Vancouver, BC, 1998.	**Conference presentation**
[14]	J. Brown, "Crowchild Interchange to cost $5 million." *Calgary Herald*, March 17, 1999, p. B2.	**Newspaper article**