

Institute of Electrical and Electronics Engineers (IEEE) Documentation Style

Introduction

The IEEE publishes several major scientific journals, for which it has established its own documentation style and standards. This handout introduces the basics of that documentation style. The entire *IEEE Editorial Style Manual* is available online at the organization's website.

In-Text Citations

The distinguishing feature of the IEEE documentation style is the use of reference numbers enclosed in square brackets to cite resources.

Basic Format:

Follow cited material with the appropriate reference number [1].

Example:

According to technical experts, IEEE is the most valuable style for aspiring engineers to learn [1].

Reference numbers are sequential, following the order in which they appear in the text. They are listed in the same order in the reference list.

Author's Name Substitution

The reference number may replace the author's name in the text.

Example:

According to [7], current Internet technology is still years behind industry projections...
The only major exception to the substitution rule is when citing a theory commonly attributed to one person.

Citation Number Placement

When a reference appears in the middle of the sentence, insert the citation number directly after the reference rather than at the end of the sentence. Sentence punctuation should follow the brackets.

Example:

One study [2] examined the mRNA levels of Jun C, Jun B, and Jun D in mouse tissues.

Multiple-Reference Citations

When more than one work is involved in the same citation, place all reference numbers within one set of brackets with commas separating them, but without spaces. If three or more citation numbers occur in sequential order, separate the range with a hyphen.

Examples:

Though unlikely, the same effects were reported by [2,7,12].

Motion or centrifugation can speed up the diagnosis of some viral infections [19-23].

Direct Quotation

When quoting a source word-for-word, enclose the quote in quotation marks and indicate any changes you make in square brackets. If you quote more than three lines, indent the quoted material by 1/2". Provide the page number from which the quotation is drawn in the reference list item.

Examples:

The authors noted that “the effects at hours post-impact are statistically ambiguous” [18]. Previous studies did not address this issue, however, because they neglected any effects of liquid surface tension and viscosity, so that their results are applicable only to the initial stages of droplet impact, when these forces are negligible compared to their inertial effects [at the time of impact] [19].

Paraphrase

Most of the time it is impractical and unnecessary to quote sources directly; whenever possible, put the information in your own words (a practice known as *paraphrasing*). It is important to document every source you use, even when you reword the text. Failing to give credit to sources is plagiarism.

Example:

Single-shot flash photography yields better results than fast-motion movies [12].

Reference Page

The reference page should include all sources used in your research. The following guidelines describe how to format the reference page. An example of a reference list appears on the next page.

General Formatting Information

Title the section References, and align the title with the left margin. Reference numbers, too, should be set flush with the left margin, forming a column 2 or 3 spaces outside the body of the reference. Number entries sequentially based on the order of their appearance in the text. When a source is cited more than once, it appears in the reference list under the initial reference number; it is not duplicated in the list of references. Double-space the reference list, both within and between entries. Use authors’ first and middle initials only before the last name. Include the names of all authors up to six names. If there are more than six names listed as authors, use *et al* following the name of the first author. Occasionally, an organization or corporation will be given as the author. In these cases, begin the citation with the name of the organization. If the author is not known, begin the citation with the source title, discounting articles (*the*, *an*, or *a*). Do not combine references; there must be only one reference per number. If there is a URL indicated with a print reference, include it at the end of the reference. If a single author produced two or more consecutively numbered references, the name is replaced in the second and subsequent entries by five (5) underscores followed by a comma. Note that each appendix must have its own reference list, separate from the reference list for the main body of the text.

References

- [1] D. Jones, *Tech. Writing Style*, Toronto: Allyn and Bacon, 1998.
- [2] H. Inose, W. Friend, A. Smith and J.R. Pierce, *Information Technology and Civilization*, New York: Freeman, 1984.
- [3] A. B. See, "Great Discoveries," *J. Basic Eng.*, ser. C, vol. 28, pp. 10-12, Jan 2002.
- [4] _____, "More Great Discoveries," *J. Basic Eng.*, ser. C, vol. 28, pp. 13-15, Jan 2002.

Types of References

—Print Resources—

Periodicals

Basic Format:

- [#] A. B. Author, "Name of paper," *Abbrev. Title of Periodical*, vol. #, no.#, pp. ###-###, Abbrev. Month, year.

Example:

- [11] J. S. Turner, "New directions in communications," *IEEE J. Select. Areas Commun.*, vol. 13, pp. 11-23, Jan. 1995.

Books

Basic Format:

- [#] A. B. Author, "Title of chapter in the book," in *Title of His Published Book*, #th ed. City of Publisher, State (if in the USA), Country: Abbrev. Of Publisher, year, ch. #, sec. #, pp. ###-###.

Example:

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

Reports

Basic Format:

[#] A. B. Author, "Title of report," Abbrev. Name of Co., City of Co., Abbrev. State, Country, Rept. ###, year.

Examples:

- [1] E. E. Reber, R. L. Michell, and C. J. Carter, "Oxygen absorption in the earth's atmosphere," Aerospace Corp., Los Angeles, CA, USA, Tech. Rep. TR-0200 (4230-46)-3, Nov. 1988.
- [2] J. H. Davis and J. R. Cogdell, "Calibration program for the 16-foot antenna," Elect. Eng. Res. Lab., Univ. Texas, Austin, Tech. Memo. NGL-006-69-3, Nov. 15, 1987.

Manuals or Handbooks

Basic Format:

[#] *Name of Manual/Handbook*, #ed., Abbrev. Name of Co., City of Co., Abbrev. State, year, pp. ###-###.

Example:

- [1] *Transmission Systems for Communications*, 3rd ed., Western Electric Co., Winston-Salem, NC, 1985, pp. 44-60.

Published Conference Proceedings

When citing conference proceedings, list the author and title of the paper, followed by the abbreviated name (and location, if given) of the conference *in italics*. Abbreviate the conference name using the standard abbreviations listed in the Style Manual. If the year is given in the conference title, it may be omitted from the end of the reference.

Basic Format:

[#] A. B. Author, "Title of paper," in *Abbreviated Name of Conf.*, (location of conference is optional), year, pp. ##-##.

Example:

- [1] G. Faber, "Design of systems with priority reservation," in *Conf. Rec. 1995 IEEE Int. Conf. Commun.*, pp. 3-8.

Conference Papers

Basic Format:

[#] A. B. Author, "Title of paper," presented at Abbrev. Name of Conf., City of Conf., Abbrev. State, year.

Example:

- [2] J. G. Kreifeldt, "An analysis of surface-detected EMG as an amplitude-modulated noise," presented at the 1989 Int. Conf. Medicine and Biological Engineering, Chicago, IL, USA, Nov. 9-12, 1989.

Patents

If several dates are given, use the issued date.

Basic Format:

- [#] A. B. Author, "Title of patent," U.S. Patent # ### ##, Abbrev. Month, day, year.

Example:

- [1] J. P. Wilkinson, "Nonlinear resonant circuit devices," U.S. Patent 3 624 125, July 16, 1990.

Theses and Dissertations

The name of the state is omitted if the university includes the state name (e.g., University of California, Berkeley).

Basic Format:

- [#] A. B. Author, "Title of Dissertation," Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year.

Example:

- [2] N. Kawasaki, "Parametric study of thermal and chemical non-equilibrium nozzle flow," M.S. thesis, Dept. Electron. Eng., Osaka Univ., Osaka, Japan, 1993.

Unpublished Sources

The two most common types of unpublished sources are personal communications and unpublished papers. Examples for both are below.

Basic Formats:

- [#] A. B. Author, private communication, Abbrev. Month, year.
[#] A. B. Author, "Title of paper," unpublished.

Examples:

- [1] A. Harrison, private communication, May 1995.
[2] B. Smith, "An approach to graphs of linear forms," unpublished.

Standards

Basic Format:

- [#] *Title of Standard*, Standard number, date.

Example:

- [2] *Letter Symbols for Quantities*, ANSI Standard Y10.5, 1968.

—On-Line Resources—

Documentation of on-line resources is similar to that of printed resources. In addition, you must indicate the type of medium in which the source appears and provide the URL or equivalent access information. Note as well that the citation does not end in a period.

Books, Monographs

Basic Format:

[#] A. B. Author, "Title of chapter in the book," in *Title of Published Book*, # ed. City of Publisher, State, Country: Abbrev. Of Publisher, Year, ch. #, sec. #, pp. ###-###. [Type of Medium]. Available: site/path/file

Example:

[1] G.O. Young, "Synthetic structure of industrial plastics," in *Plastics, Polymers of Hexadromicon*, J. Peters, Ed., 2nd ed. New York, NY, USA: McGraw-Hill, 1964, pp. 15-64. [Online]. Available: <http://www.bookref.com>

Periodicals

Basic Format:

[#] A. B. Author, "Name of paper," *Abbrev. Title of Periodical*, vol. #, no. #, pp. ###-###, Abbrev. Month, year. Accessed on: Month, Day, Year. doi: 10.1109.XXX.123456, [Type of Medium]. Available: site/path/file

Example:

[6] W. P. Risk, G. S. Kino, and H. J. Shaw, "Fiber-optic frequency shifter using a surface acoustic wave incident at an oblique angle," *Opt. Lett.*, vol. 11, no. 2, pp. 115–117, Feb. 1986. [Online]. Available: <http://ol.osa.org/abstract.cfm?URI=ol-11-2-115>

Papers Presented at Conferences

Basic Format:

[#] A. B. Author, Title. Presented at abbrev. Conf. title. [Type of Medium]. Available: site/path/file

Example:

[3] Process Software Corp., MA. Intranets: Internet technologies deployed behind the firewall for corporate productivity. Presented at INET'96 Annu. Meeting [Online]. Available: <http://www.process.com/Intranets/wp2.htm>

Reports and Handbooks

Basic Format:

- [1] A. B. Author, "Title of report," Abbrev. Name of Co., City of Co., Abbrev. State, Country, Rep. no., vol./issue, year. [Type of Medium]. Available: site/path/file

Example:

- [1] R. J. Hijmans and J. van Etten, "Raster: Geographic analysis and modeling with raster data," R Package Version 2.0-12, Jan. 12, 2012. [Online]. Available: <http://CRAN.R-project.org/package=raster>

U.S. Government Documents

Basic Format:

- [#] Legislative Body. Number of Congress, Session. (year, month day). *Number of bill or resolution, Title*. [Type of medium]. Available: site/path/file

Example:

- [10] U.S. House. 102nd Congress, 1st Session. (1991, Jan. 11). *H. Con. Res. 1, Sense of the Congress on Approval of Military Action*. [Online]. Available: LEXIS Library: GENFED File: BILLS

Patents

Basic Format:

- [#] Name of the invention, by inventor's name. (year, Month day). *Patent Number* [Type of medium]. Available: site/path/file

Example:

- [4] Musical toothbrush with adjustable neck and mirror, by L. M. R. Brooks. (1992, May 19). *Patent D 326 189* [Online]. Available: NEXIS Library: LEXPAT File: DESIGN

Manuals/Software

Basic Format:

- [#] A. B. Author. (Year). *Title*. [Type of Medium]. Available: <http://www.web.com>, Accessed on: Abbrev. Month, day, year.

Example:

- [3] L. Breimann. (2003). *Manual on Setting Up, Using, and Understanding Random Forests v4.0*. [Online]. Available: http://oz.berkeley.edu/users/breiman/Using_random_forests_v4.0.pdf, Accessed on: Apr. 16, 2014.

Updated: March 27, 2017
Missouri S&T Writing Center