

IEEE General Citation Guide

General Rules

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|---|---|
| <ul style="list-style-type: none"> IEEE in-text citations consist of numbers provided in square brackets, which correspond to the appropriate sources in the reference list at the end of the paper. Each in-text citation number should appear on the text line, inside sentence punctuation, with a space before the bracket. The in-text citation numbers start at [1] and continue in ascending order throughout the paper. | <ul style="list-style-type: none"> A numbered list of references must be provided at the end of the paper. The reference list contains full details of all sources cited in-text. The sources are numbered in the order they are used in the paper. The given name of the author is abbreviated to the initials followed by the last name. In the reference list, write the names of all authors, up to six. If there are more than six author names, use the primary author's last name followed by "et al." (meaning "and others"). |
|---|---|

	In-Text Citations	Parenthetical Citations	In-text and Parenthetical Citations: Overarching Rules
General	Johnson [1] believed that...	Paper is made from trees [1].	Direct Quotes: The page number(s) must be included.
Direct Quotes	Schumer [6, pp. 4-5] argued that... Holland et al. [7, p. 33] argued...	Schumer argued that "the importance of clear writing cannot be understated" [6, pp. 4-5].	Paraphrasing: Page numbers are not generally used unless a specific theory or idea is being discussed. Multiple Sources: Each source gets its own brackets.
Figures or Images	The data in [2] shows...	Figure 1.3 shows the evidence [4].	Bracketed sources: Can be used as nouns in the sentence.
Multiple Sources	[1], [3], and [6] show...	Weebly, Ketting, and Goodman's ideas are still widely used today [1]-[3].	Three or more authors: When citing three or more authors in an in-text citation, list the first author and et al. (e.g., Holland et al.)

Reference Citations

While citing electronic information in a reference list, include the relevant URL. Below are a few formats to include the URL in a reference. Refer to the [IEEE reference guide](#) for additional formats.

- Accessed date. [Online]. Available: URL, DOI (add period at end).
- Accessed date. [Online]. Available: URL (no period at end)
- URL, DOI (add period at end).

Also refer to the below example for citing "Online Books."

Books and Chapters	J. K. Author, "Title of chapter in the book," in <i>Title of His Published Book</i> , xth ed. City of Publisher, (only U.S. State), Country: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx-xxx. - L. Stein, "Random patterns," in <i>Computers and You</i> , J. S. Brake, Ed. New York, NY, USA: Wiley, 1994, pp. 55-70.
Online Books	J. K. Author, "Title of chapter in the book," in <i>Title of Published Book</i> , xth ed. City of Publisher, State, Country: Abbrev. of Publisher, year, ch. x, sec. x, pp. xxx-xxx. [Online]. Available: http://www.web.com - P. B. Kurland and R. Lerner, Eds., <i>The Founders' Constitution</i> . Chicago, IL, USA: Univ. of Chicago Press, 1987. Accessed: Feb. 28, 2010. [Online]. Available: http://press-pubs.uchicago.edu/founders/
Articles	J. K. Author, "Title of article," Abbrev. Title of Periodical, vol. x, no. x, pp. xxx-xxx, Abbrev. Month, year, doi: xxx. - N. Paskin, "Toward unique identifiers," <i>Proceedings of the IEEE</i> , vol. 87, no. 7, pp. 1208 - 1227, Jul. 1999, doi: 10.1109/5.771073.
Websites	First Name Initial(s) Last Name. "Page Title." Website Title. Web Address (retrieved Date Accessed). - K. Wertheimer. "Get to Know Each of Alaska's Eight Awe-Inspiring National Parks." <i>Sunset.com</i> . https://www.sunset.com/travel/national-parks/alaska-best-national-parks (accessed Feb. 1, 2020).
Technical Reports	J. K. Author, "Title of report," Abbrev. Name of Co., City of Co., Abbrev. State, Country, Rep. xxx, year. - P. Diament, S. L. Richert, and W. L. Lupatkin, "V-line surface-wave radiation and scanning," <i>Dept. Elect. Eng., Columbia Univ., New York, NY, USA, Sci. Rep.</i> 85, Aug. 1991.
Conference Papers	J. K. Author, "Title of paper," presented at the Abbreviated Name of Conf., City of Conf., Abbrev. State, Country, Month and day(s), year, Paper number. - D. Caratelli, M. C. Viganó, G. Toso, and P. Angeletti, "Analytical placement technique for sparse arrays," presented at the 32nd ESA Antenna Workshop, Noordwijk, The Netherlands, Oct. 5-8, 2010.
Manual/Handbook	Name of Manual/Handbook, x ed., Abbrev. Name of Co., City of Co., Abbrev. State, Country, year, pp. xxx-xxx. - <i>Motorola Semiconductor Data Manual</i> , Motorola Semiconductor Products Inc., Phoenix, AZ, USA, 1989.

Patent	J. K. Author, "Title of patent," U.S. Patent x xxx xxx, Abbrev. Month, day, year. - G. Devic and C. Shaw, "Selectable mode smoothing texture filter for computer graphics," U.S. Patent 6 181 347, Jan. 30, 2001.
Theses and Dissertations	J. K. Author, "Title of thesis," B.S./M.S. thesis/ Ph.D. dissertation, Abbrev. Dept., Abbrev. Univ., City of Univ., Abbrev. State, year. - J. O. Williams, "Narrow-band analyzer," Ph.D. dissertation, Dept. Elect. Eng., Harvard Univ., Cambridge, MA, USA, 1993.
Online Video (e.g., YouTube)	Video Owner/Creator, Location (if available). Title of Video: In Initial Caps. (Release date). Accessed: Month Day, Year. [Online Video]. Available: http://URL.onlinevideo.org - David Xiang, NY, USA. 10 Courses Every Software Engineer Should Take. (Feb. 20, 2016). Accessed: Jun. 3, 2020. [Online Video]. Available: https://www.youtube.com/watch?v=RMQI7iGgGYY

Heading levels

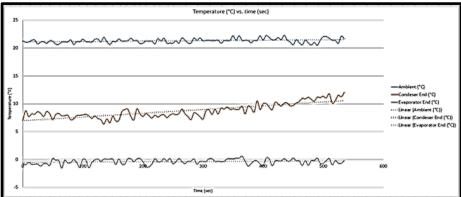
I. Primary Headings are centered and numbered with Roman numerals. These are the titles of your sections.

A. Secondary headings are aligned left and marked with capital letter.

1. Tertiary headings are tabbed once and marked by Arabic numerals.
 - a. Quaternary headings are tabbed twice and shown by lower-case letters.

Figures, Tables, and Equations

- All the citations of figures, tables, and equations in the article must follow a numerical order.
- Do not use articles ("a," "an," or "the") at the beginning of a caption for figures, tables, or equations in in-text citations.
- e.g., Incorrect: Refer to the Fig. 1; Correct: Refer to Fig. 1.

Figures	Tables	Equations															
<ul style="list-style-type: none"> The title of the figures must be descriptive and placed below the figure.  <p>Fig.1 Plot of temperature measurement vs. time</p> <ul style="list-style-type: none"> Use a lowercase letter within parentheses if parts of the figure are labeled. Include the description of those labels in the caption of the figure. <p>Fig. 2. (a) Variation of effective mode index with time. (b) Step-index change.</p> <ul style="list-style-type: none"> For in-text citations, use the abbreviation "Fig." followed by the figure number. 	<ul style="list-style-type: none"> Captions for a table must be centered above the table with the label TABLE, and the enumeration must be represented in Roman numerals (e.g., TABLE I). The description of the caption must be centered directly below the table number caption (e.g., Cars I Have Seen Today). The optional descriptive notes can be included below the table, if necessary. <p style="text-align: center;">TABLE I Cars I Have Seen Today</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Make</th> <th>Color</th> <th>Location</th> </tr> </thead> <tbody> <tr> <td>Toyota</td> <td>Red</td> <td>Grocery Store</td> </tr> <tr> <td>Mercedes</td> <td>Blue</td> <td>Parking Garage</td> </tr> <tr> <td>Hyundai</td> <td>White</td> <td>Parking Garage</td> </tr> <tr> <td>Ford</td> <td>White</td> <td>Highway</td> </tr> </tbody> </table> <p style="text-align: center;">White cars were the most common today.</p> <ul style="list-style-type: none"> Maximum width is 7.5" Maximum height is 10" Lines must be at least 0.5 or 1-point thick. Caption size must be 8-point font. 	Make	Color	Location	Toyota	Red	Grocery Store	Mercedes	Blue	Parking Garage	Hyundai	White	Parking Garage	Ford	White	Highway	<ul style="list-style-type: none"> Equations are center-aligned and labeled with right-aligned Arabic numbers enclosed in parentheses. $A = \pi r^2 \quad (1)$ <ul style="list-style-type: none"> For in-text citations, mention the equation number only, e.g., mention "as seen in (2)" instead of "as seen in Equation (2)." Exception: A sentence beginning with an equation number, e.g., "Equation (1) demonstrates..."
Make	Color	Location															
Toyota	Red	Grocery Store															
Mercedes	Blue	Parking Garage															
Hyundai	White	Parking Garage															
Ford	White	Highway															

This guide is based on the 2020 edition of the IEEE reference guide. For more information, consult the IEEE reference guide available on [the IEEE website](http://www.ieee.org).