IEEE Journal Abbreviations List

General Abbreviation Rules

Basic Guidelines

- ☐ Abbreviate common words: Transactions → Trans., Conference → Conf.
- ☐ Keep short words: "on" stays "on"
- ☐ Italicize entire journal name in references
- ☐ Use official IEEE abbreviations when available
- ☐ Be consistent throughout paper

Common Word Abbreviations

- **Transactions** → Trans.
- **Journal** → J.
- **Proceedings** → Proc.
- **Conference** → Conf.
- **International** → Int.
- **Symposium** → Symp.
- **Magazine** → Mag.
- **Letters** → Lett.
- **Communications** → Commun.
- **Computer/Computing** → Comput.
- **Systems** → Syst.
- **Technology** → Technol.
- **Engineering** → Eng.
- **Science** → Sci.
- **Application/Applied** → Appl.
- **Society** → Soc.

IEEE Transactions

Computer Science & AI

Full Name: IEEE Transactions on Pattern Analysis and Machine Intelligence
Abbreviation: *IEEE Trans. Pattern Anal. Mach. Intell.*
Common: TPAMI

Full Name: IEEE Transactions on Neural Networks and Learning Systems
Abbreviation: *IEEE Trans. Neural Netw. Learn. Syst.*
Common: TNNLS

Full Name: IEEE Transactions on Computers
Abbreviation: *IEEE Trans. Comput.*
Common: TC

Full Name: IEEE Transactions on Knowledge and Data Engineering
Abbreviation: *IEEE Trans. Knowl. Data Eng.*
Common: TKDE

Full Name: IEEE Transactions on Software Engineering
Abbreviation: *IEEE Trans. Softw. Eng.*
Common: TSE

Full Name: IEEE Transactions on Parallel and Distributed Systems
Abbreviation: *IEEE Trans. Parallel Distrib. Syst.*
Common: TPDS

Full Name: IEEE Transactions on Visualization and Computer Graphics
Abbreviation: *IEEE Trans. Vis. Comput. Graphics*
Common: TVCG

Full Name: IEEE Transactions on Cybernetics
Abbreviation: *IEEE Trans. Cybern.*
Common: TCYB

Full Name: IEEE Transactions on Computational Intelligence and AI in Games
Abbreviation: *IEEE Trans. Comput. Intell. AI Games*
Common: TCIAIG

Networks & Communications

Full Name: IEEE Transactions on Wireless Communications
Abbreviation: *IEEE Trans. Wireless Commun.*
Common: TWC

Full Name: IEEE Transactions on Communications
Abbreviation: *IEEE Trans. Commun.*
Common: TCOM

Full Name: IEEE Transactions on Networking
Abbreviation: *IEEE Trans. Netw.*
Common: TON

Full Name: IEEE Transactions on Mobile Computing
Abbreviation: *IEEE Trans. Mobile Comput.*
Common: TMC

Full Name: IEEE Transactions on Vehicular Technology
Abbreviation: *IEEE Trans. Veh. Technol.*
Common: TVT

Signal Processing & Multimedia

Full Name: IEEE Transactions on Signal Processing
Abbreviation: *IEEE Trans. Signal Process.*
Common: TSP

Full Name: IEEE Transactions on Image Processing
Abbreviation: *IEEE Trans. Image Process.*
Common: TIP

Full Name: IEEE Transactions on Audio, Speech, and Language Processing
Abbreviation: *IEEE Trans. Audio, Speech, Lang. Process.*
Common: TASLP

Full Name: IEEE Transactions on Multimedia
Abbreviation: *IEEE Trans. Multimedia*
Common: TMM

Circuits & Systems

Full Name: IEEE Transactions on Circuits and Systems I: Regular Papers
Abbreviation: *IEEE Trans. Circuits Syst. I, Reg. Papers*

Common: TCAS-I

Full Name: IEEE Transactions on Circuits and Systems II: Express Briefs
Abbreviation: *IEEE Trans. Circuits Syst. II, Express Briefs*
Common: TCAS-II

Full Name: IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems
Abbreviation: *IEEE Trans. Comput.-Aided Design Integr. Circuits Syst.*
Common: TCAD

Full Name: IEEE Transactions on Very Large Scale Integration (VLSI) Systems
Abbreviation: *IEEE Trans. Very Large Scale Integr. (VLSI) Syst.*
Common: TVLSI

Power & Energy

Full Name: IEEE Transactions on Power Electronics
Abbreviation: *IEEE Trans. Power Electron.*
Common: TPEL

Full Name: IEEE Transactions on Power Systems
Abbreviation: *IEEE Trans. Power Syst.*
Common: TPWRS

Full Name: IEEE Transactions on Smart Grid
Abbreviation: *IEEE Trans. Smart Grid*
Common: TSG

Full Name: IEEE Transactions on Sustainable Energy
Abbreviation: *IEEE Trans. Sustain. Energy*
Common: TSTE

Full Name: IEEE Transactions on Energy Conversion
Abbreviation: *IEEE Trans. Energy Convers.*
Common: TEC

Robotics & Control

Full Name: IEEE Transactions on Robotics
Abbreviation: *IEEE Trans. Robot.*
Common: TRO

Full Name: IEEE Transactions on Automation Science and Engineering
Abbreviation: *IEEE Trans. Autom. Sci. Eng.*
Common: TASE

Full Name: IEEE Transactions on Control Systems Technology
Abbreviation: *IEEE Trans. Control Syst. Technol.*
Common: TCST

Full Name: IEEE Transactions on Automatic Control
Abbreviation: *IEEE Trans. Autom. Control*
Common: TAC

Information Theory & Security

Full Name: IEEE Transactions on Information Theory
Abbreviation: *IEEE Trans. Inf. Theory*
Common: TIT

Full Name: IEEE Transactions on Information Forensics and Security
Abbreviation: *IEEE Trans. Inf. Forensics Security*
Common: TIFS

Full Name: IEEE Transactions on Dependable and Secure Computing
Abbreviation: *IEEE Trans. Dependable Secure Comput.*
Common: TDSC

Biomedical & Medical

Full Name: IEEE Transactions on Biomedical Engineering
Abbreviation: *IEEE Trans. Biomed. Eng.*
Common: TBME

Full Name: IEEE Transactions on Medical Imaging
Abbreviation: *IEEE Trans. Med. Imag.*
Common: TMI

Full Name: IEEE Transactions on Neural Systems and Rehabilitation Engineering
Abbreviation: *IEEE Trans. Neural Syst. Rehabil. Eng.*
Common: TNSRE

Instrumentation & Measurement

Full Name: IEEE Transactions on Instrumentation and Measurement
Abbreviation: *IEEE Trans. Instrum. Meas.*
Common: TIM

Full Name: IEEE Transactions on Industrial Electronics
Abbreviation: *IEEE Trans. Ind. Electron.*
Common: TIE

Full Name: IEEE Transactions on Industrial Informatics
Abbreviation: *IEEE Trans. Ind. Informat.*
Common: TII

IEEE Magazines

Full Name: IEEE Communications Magazine
Abbreviation: *IEEE Commun. Mag.*

Full Name: IEEE Computer Graphics and Applications
Abbreviation: *IEEE Comput. Graphics Appl.*

Full Name: IEEE Computational Intelligence Magazine
Abbreviation: *IEEE Comput. Intell. Mag.*

Full Name: IEEE Security & Privacy
Abbreviation: *IEEE Security Privacy*

Full Name: IEEE Internet Computing
Abbreviation: *IEEE Internet Comput.*

Full Name: IEEE Software
Abbreviation: *IEEE Softw.*

Full Name: IEEE Spectrum
Abbreviation: *IEEE Spectr.*

Full Name: IEEE Micro

Abbreviation: *IEEE Micro*

IEEE Journals (Not "Transactions")

Full Name: IEEE Journal on Selected Areas in Communications
Abbreviation: *IEEE J. Sel. Areas Commun.*
Common: JSAC

Full Name: IEEE Journal of Solid-State Circuits
Abbreviation: *IEEE J. Solid-State Circuits*
Common: JSSC

Full Name: IEEE Journal of Lightwave Technology
Abbreviation: *IEEE J. Lightw. Technol.*
Common: JLT

Full Name: IEEE Access
Abbreviation: *IEEE Access* (no abbreviation, use full name)

IEEE Letters

Full Name: IEEE Signal Processing Letters
Abbreviation: *IEEE Signal Process. Lett.*
Common: SPL

Full Name: IEEE Communications Letters
Abbreviation: *IEEE Commun. Lett.*
Common: CL

Full Name: IEEE Wireless Communications Letters
Abbreviation: *IEEE Wireless Commun. Lett.*
Common: WCL

Full Name: IEEE Control Systems Letters
Abbreviation: *IEEE Control Syst. Lett.*
Common: L-CSS

Conference Proceedings Abbreviations

Computer Vision

Full Name: IEEE Conference on Computer Vision and Pattern Recognition
Abbreviation: *Proc. IEEE Conf. Comput. Vis. Pattern Recognit. (CVPR)*

Full Name: IEEE International Conference on Computer Vision
Abbreviation: *Proc. IEEE Int. Conf. Comput. Vis. (ICCV)*

Full Name: European Conference on Computer Vision
Abbreviation: *Proc. Eur. Conf. Comput. Vis. (ECCV)*

Machine Learning & AI

Full Name: International Conference on Machine Learning
Abbreviation: *Proc. Int. Conf. Mach. Learn. (ICML)*

Full Name: Conference on Neural Information Processing Systems

Abbreviation: *Proc. Adv. Neural Inf. Process. Syst. (NeurIPS)*

Full Name: International Conference on Learning Representations
Abbreviation: *Proc. Int. Conf. Learn. Represent. (ICLR)*

Full Name: AAAI Conference on Artificial Intelligence
Abbreviation: *Proc. AAAI Conf. Artif. Intell.*

Robotics

Full Name: IEEE International Conference on Robotics and Automation
Abbreviation: *Proc. IEEE Int. Conf. Robot. Autom. (ICRA)*

Full Name: IEEE/RSJ International Conference on Intelligent Robots and Systems
Abbreviation: *Proc. IEEE/RSJ Int. Conf. Intell. Robots Syst. (IROS)*

Software Engineering

Full Name: International Conference on Software Engineering
Abbreviation: *Proc. Int. Conf. Softw. Eng. (ICSE)*

Full Name: ACM SIGSOFT Symposium on Foundations of Software Engineering
Abbreviation: *Proc. ACM SIGSOFT Symp. Found. Softw. Eng. (FSE)*

Security & Privacy

Full Name: IEEE Symposium on Security and Privacy
Abbreviation: *Proc. IEEE Symp. Security Privacy*

Full Name: USENIX Security Symposium
Abbreviation: *Proc. USENIX Security Symp.*

Full Name: ACM Conference on Computer and Communications Security
Abbreviation: *Proc. ACM Conf. Comput. Commun. Security (CCS)*

Networks & Systems

Full Name: ACM SIGCOMM Conference
Abbreviation: *Proc. ACM SIGCOMM Conf.*

Full Name: USENIX Symposium on Operating Systems Design and Implementation
Abbreviation: *Proc. USENIX Symp. Oper. Syst. Des. Implement. (OSDI)*

Full Name: ACM Symposium on Operating Systems Principles
Abbreviation: *Proc. ACM Symp. Oper. Syst. Princ. (SOSP)*

Non-IEEE Journals

ACM Journals

Full Name: ACM Transactions on Graphics
Abbreviation: *ACM Trans. Graph.*

Full Name: ACM Transactions on Computer Systems
Abbreviation: *ACM Trans. Comput. Syst.*

Full Name: ACM Computing Surveys

Abbreviation: *ACM Comput. Surv.*

Full Name: Journal of the ACM
Abbreviation: *J. ACM*

Springer Journals

Full Name: Machine Learning
Abbreviation: *Mach. Learn.*

Full Name: Neural Computing and Applications
Abbreviation: *Neural Comput. Appl.*

Full Name: Journal of Machine Learning Research
Abbreviation: *J. Mach. Learn. Res.* (JMLR)

Elsevier Journals

Full Name: Computer Networks
Abbreviation: *Comput. Netw.*

Full Name: Pattern Recognition
Abbreviation: *Pattern Recognit.*

Full Name: Information Sciences
Abbreviation: *Inf. Sci.*

Full Name: Neural Networks
Abbreviation: *Neural Netw.*

Full Name: Expert Systems with Applications
Abbreviation: *Expert Syst. Appl.*

Nature/Science

Full Name: Nature
Abbreviation: *Nature* (no abbreviation)

Full Name: Science
Abbreviation: *Science* (no abbreviation)

Full Name: Nature Machine Intelligence
Abbreviation: *Nat. Mach. Intell.*

Full Name: Nature Communications
Abbreviation: *Nat. Commun.*

Quick Reference: Abbreviation Patterns

IEEE Transactions Format

```
IEEE Trans. [Subject Area/Topic]
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Examples: - IEEE Trans. Signal Process. - IEEE Trans. Neural Netw. Learn. Syst. - IEEE Trans. Comput.

Conference Proceedings Format

```
Proc. [Organizer] [Type] [Topic] ([Acronym])
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Examples: - Proc. IEEE Conf. Comput. Vis. Pattern Recognit. (CVPR) - Proc. Int. Conf. Mach. Learn. (ICML) - Proc. ACM SIGCOMM Conf.

How to Abbreviate Unlisted Journals

Step-by-Step Process

1. **Check official sources:**
   - IEEE Reference Guide
   - Journal's website (author guidelines)
   - Web of Science journal abbreviations
   - ISO 4 standard abbreviations
2. **Apply standard rules:**
   - Abbreviate common words (Transaction, Journal, International)
   - Keep short words (on, in, of, and, the)
   - Remove articles (a, an, the) except when needed
   - Use standard abbreviations from ISO 4
3. **Examples:**

Full: International Journal of Advanced Computer Technology
Abbreviated: *Int. J. Adv. Comput. Technol.*

Full: Journal of Electrical Engineering and Technology
Abbreviated: *J. Elect. Eng. Technol.*

Full: Wireless Personal Communications
Abbreviated: *Wireless Pers. Commun.*

Subject Area Quick Finder

Computer Science/AI: - TPAMI, TNNLS, TKDE, TSE, TVCG

Networks/Communications: - TWC, TCOM, TON, TMC

Signal Processing: - TSP, TIP, TASLP, TMM

Power/Energy: - TPEL, TPWRS, TSG

Robotics: - TRO, TASE, TCST

Security: - TIFS, TDSC

Biomedical: - TBME, TMI, TNSRE

Common Abbreviation Mistakes

 Full journal name: IEEE Transactions on Pattern Analysis and Machine Intelligence
 Abbreviated: *IEEE Trans. Pattern Anal. Mach. Intell.*

 Wrong abbreviation: IEEE Trans. on PAMI
 Correct: *IEEE Trans. Pattern Anal. Mach. Intell.*

 Missing italics: IEEE Trans. Comput.
 With italics: *IEEE Trans. Comput.*

 Inconsistent: Use different abbreviations for same journal
 Consistent: Use same abbreviation throughout paper

☐ **Over-abbreviate:** *IEEE Tr. Comp.*
☐ **Standard abbreviation:** *IEEE Trans. Comput.*

Tips for Using Abbreviations

Do: - ☐ Use official IEEE abbreviations - ☐ Italicize entire journal name - ☐ Be consistent throughout paper - ☐ Include volume, issue, pages after journal name - ☐ Check IEEE Reference Guide for unlisted journals

Don't: - ☐ Create your own abbreviations - ☐ Over-abbreviate (Tr. instead of Trans.) - ☐ Mix abbreviated and full names - ☐ Forget periods after abbreviations - ☐ Abbreviate short journal names (e.g., Science, Nature)

Resources

Official Resources: - **IEEE Reference Guide:** ieee-dataport.org/documents/ieee-reference-guide - **Web of Science Abbreviations:** images.webofknowledge.com/images/help/WOS/A_abrvjt.html - **ISO 4 Database:** issn.org/services/online-services/access-to-the-ltwa/

Tools: - Reference management software (Zotero, Mendeley, EndNote) - Google Scholar (set preferences to IEEE format) - Journal websites (check author guidelines)

Example References with Abbreviations

Journal article:
[1] A. Smith and B. Jones, "Deep learning for image recognition," *IEEE Trans. Pattern Anal. Mach. Intell.*, vol. 42, no. 5, pp. 1234-1245, May 2020.

Conference paper:
[2] C. Lee, "Network security methods," in *Proc. IEEE Symp. Security Privacy*, May 2023, pp. 456-470.

Magazine:
[3] D. Brown, "Future of AI," *IEEE Spectr.*, vol. 60, no. 3, pp. 20-25, Mar. 2023.

Non-IEEE journal:
[4] E. Garcia, "Machine learning algorithms," *J. Mach. Learn. Res.*, vol. 24, pp. 100-125, 2023.

When in doubt, consult the IEEE Reference Guide or the specific journal's author guidelines for the correct abbreviation.