

IEEE Contribution for Academic Excellence and Research

IEEE Xplore Subscriptions for Academic Institutions

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Content

- Digital Resources at Higher Education and Research
- IEEE *Xplore* Digital Library – Quick Facts
- Who uses IEEE Information?
- IEEE is Source of Reliable Information
- IEEE is Leading Information Source for Engineering and Technology
- IEEE *Xplore* for Academic Institutions

Digital Library - More Than Content

- The expansion of the Internet as a major source of information is changing education and research
- A Digital Library may be defined as an organized collection of digital resources accessible by means of an electronic catalogue

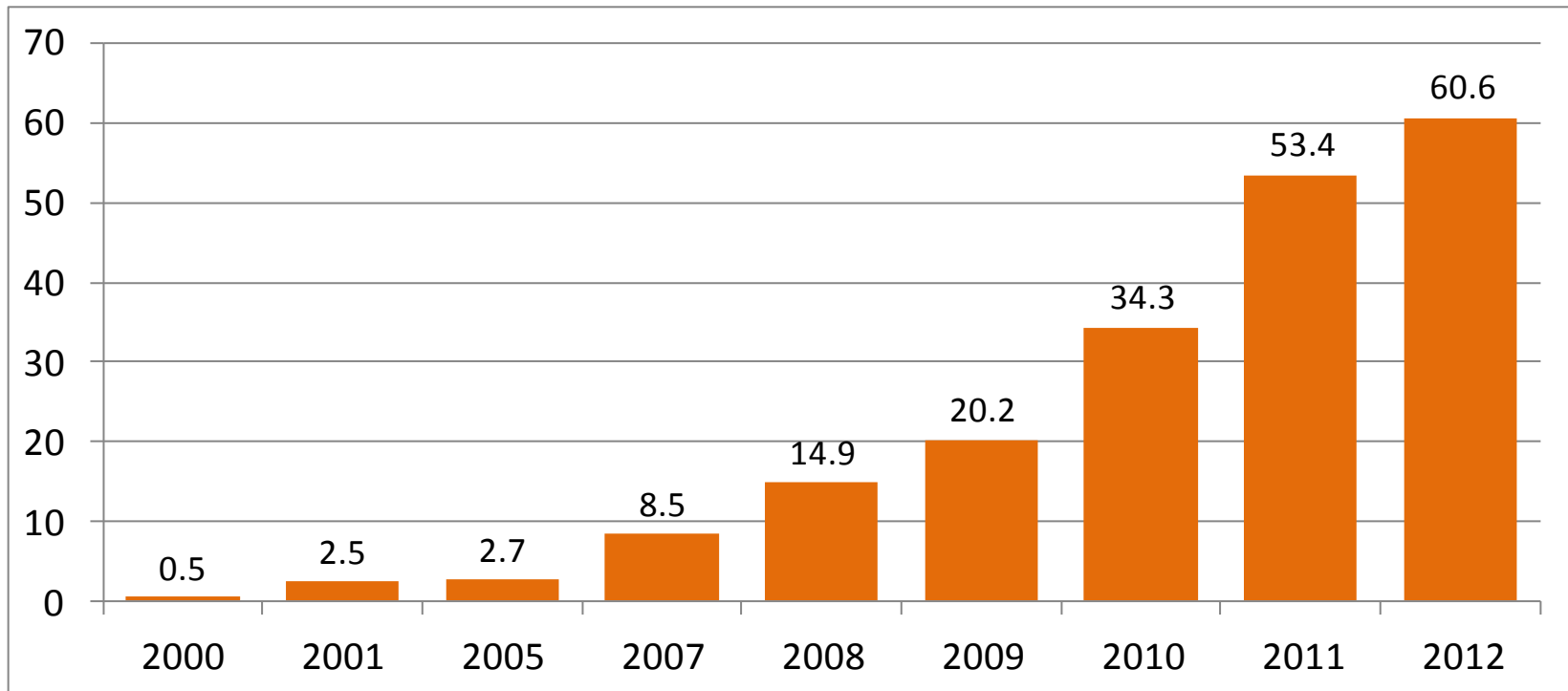
Digital Library Benefits

- Increase in functionality and reach
- True cross searching
- Increase diversity for materials and content
- Ease of use and ubiquitous availability
- A deep and manageable reach
- Knowledge creation possibilities
- Access to information located in disparate locations

Digital Higher Education Trends

- e-learning, e-Research, e-Science
- Management of Digital Resources
- Integration of Digital Resources
- Open Access and Institutional Repositories
- Digitisation of Everything
- Preservation and Digital Archiving
- Cooperation - 'Research Clusters'

Internet Penetration in Kazakhstan



According to the State Statistics Agency and Ministry of Transport and Communications of Kazakhstan

IEEE Xplore Digital Library

IEEE.org | IEEE Xplore Digital Library | IEEE Standards | IEEE Spectrum | More Sites Cart(0) | Create Account | Sign In


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DIGITAL LIBRARY

For Institutional Users:
▶ Institutional Sign In
▶ Athens/Shibboleth

IEEE

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Highlights | **What's Popular** | **Most Recent**

Listed by publish date

Books & eBooks

- ▶ Introduction to Wireless Localization:With iPhone SDK Examples
- ▶ Streamlining Digital Signal Processing:A Tricks of the Trade Guidebook
- ▶ Baseband Receiver Design for Wireless MIMO-OFDM Communications
- ▶ Ultrasonic Inspection Technology Development and Search Unit Design:Examples of Practical Applications
- ▶ Optical CDMA Networks:Principles, Analysis and Applications

Education & Learning

- ▶ IEEE English for Engineering
- ▶ Product Development for the other 90%: Lessons

Conference Publications

- ▶ Communications (COMM), 2012 9th International Conference on
- ▶ Mobile Services (MS), 2012 IEEE First International Conference on
- ▶ Quality of Multimedia Experience (QoMEX), 2012 Fourth International Workshop on
- ▶ Wireless and Pervasive Computing (ISWPC), 2012 7th International Symposium on
- ▶ OCEANS, 2012 - Yeosu
- ▶ View More ...

Journals & Magazines

- ▶ Circuits and Systems II: Express Briefs, IEEE Transactions on

IEEE 2012 *Xplore* Digital Library

- More than 3 million full-text documents
- 150 IEEE journals & magazines
- Over 1,200 annual IEEE conferences
- Over 2,500 active, archived & redline IEEE standards
- IET journals, magazines, & conferences
- 20+ VDE Verlag conferences
- Backfile to 1988 plus select legacy data back to 1872

Who uses IEEE information?

The World's Most Successful Technology Organizations Rely on IEEE Information



The Most Innovative Technology Companies

- 22 of top 25 Semiconductor companies
- 7 of top 10 Aerospace companies
- 8 of top 10 Communications Equipment companies
- 8 out of top 10 Telecommunications companies
- All of the top 7 Computer Services companies
(Forbes Global 2000 , May 2011)



The Leading Universities

- All of the top 100 engineering schools in US
- 97 of the Top 100 Technical Universities Worldwide
(US News and World Report 2011, Times Higher Education Top Technology Universities)
- Consortiums in over 30 countries



Government R&D Centers Worldwide

- Defense research and aerospace agencies
- Communications and energy research labs
- Patent offices, public libraries, and scientific councils
- Government R&D centers in North America, Europe, Asia and the Middle East

Why do they all rely on IEEE information?

IEEE Covers All Areas of Technology

More than just electrical engineering & computer science

- Aerospace & Defense
- Automotive Engineering
- Biomedical Engineering
- Biometrics
- Circuits & Systems
- Cloud Computing
- Communications
- Computer Software
- Electronics
- Energy
- Engineering
- Imaging
- Information Technology
- Medical Devices
- Nanotechnology
- Optics
- Petroleum & Gas
- Power Electronics
- Power Systems
- Robotics & Automation
- Semiconductors
- Smart Grid
- Wireless Broadband
-and many more

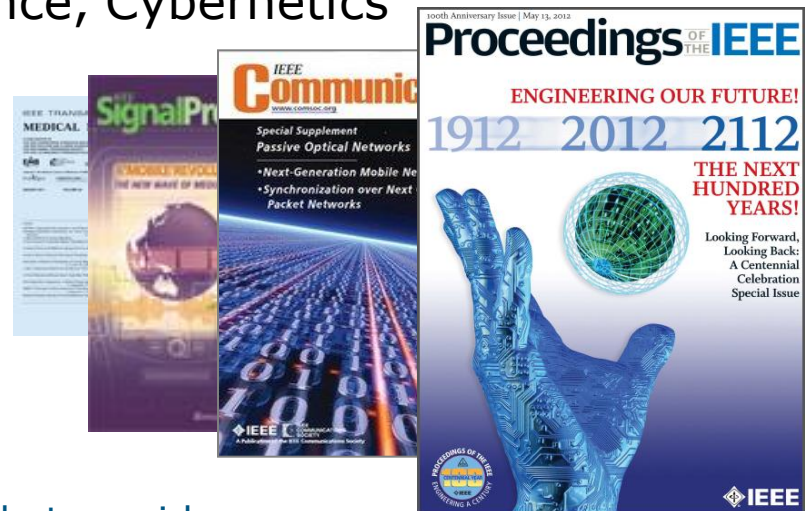


Quality You Can Trust

Journal Citation Report Results, by Impact Factor

IEEE publishes:

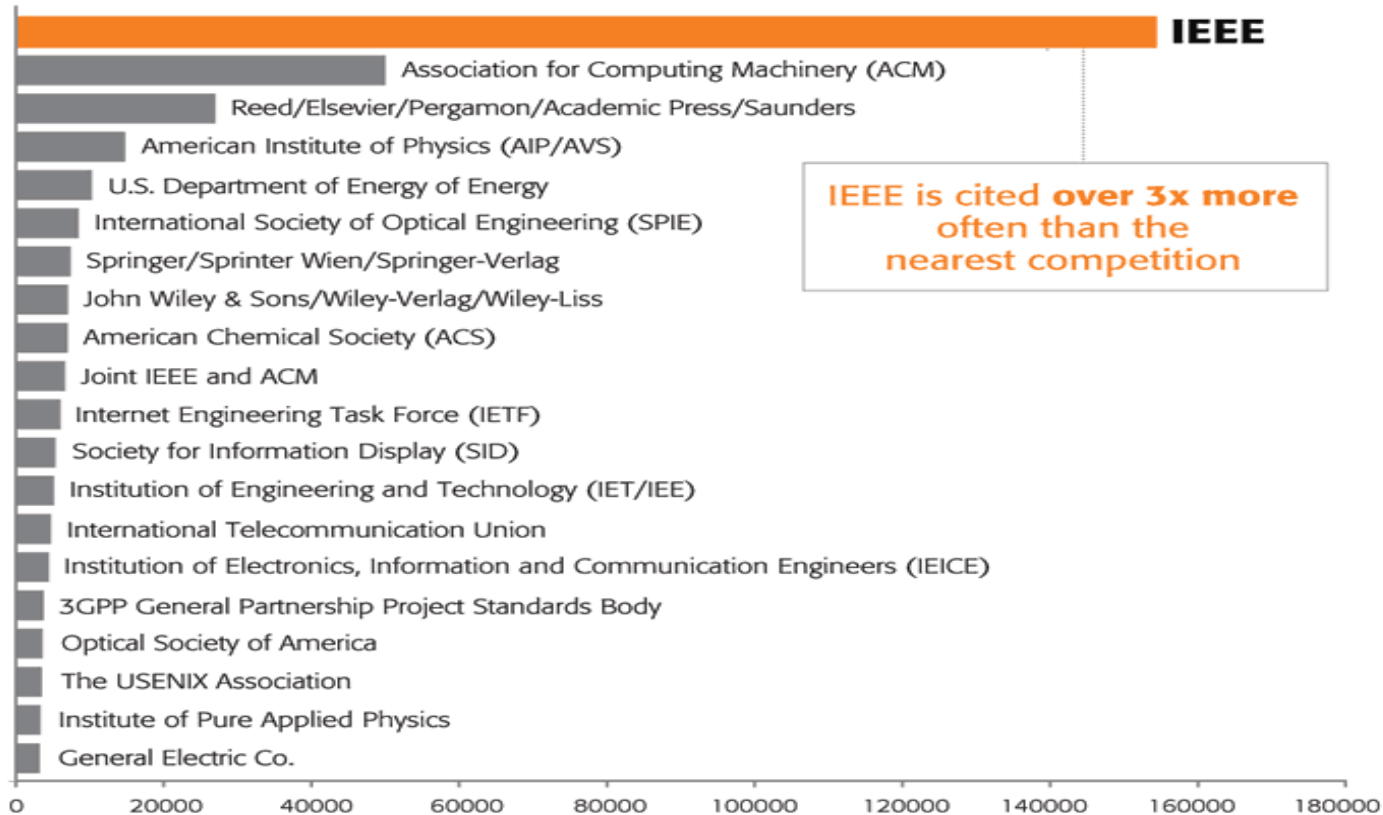
- 17 of top 20 journals in Electrical and Electronic Engineering
- 8 of top 10 journals in Telecommunications
- 7 of top 10 journals in Automation & Control Systems
- 6 of top 10 journals in Computer Hardware & Architecture
- 4 of top 5 journals in Computer Science, Cybernetics
- # 1 in Information Systems
- # 1 in Telecommunications
- # 1 in Artificial Intelligence
- # 1 in Computer Hardware
- # 1 in Automation and Control
- # 1 in Transportation Science



The ISI JCR presents “quantifiable statistical data that provides a systematic, objective way to evaluate the world’s leading journals”

(2011 report released June 2012)

Patent References to STM Publishers



Source: 1790 Analytics LLC, Copyright 2012. IEEE journals and conference proceedings cited more than three times than any other top-20 publisher. Papers referencing IEEE papers in patents has increased 546% since 1997

IEEE Contribution to Science and Technology



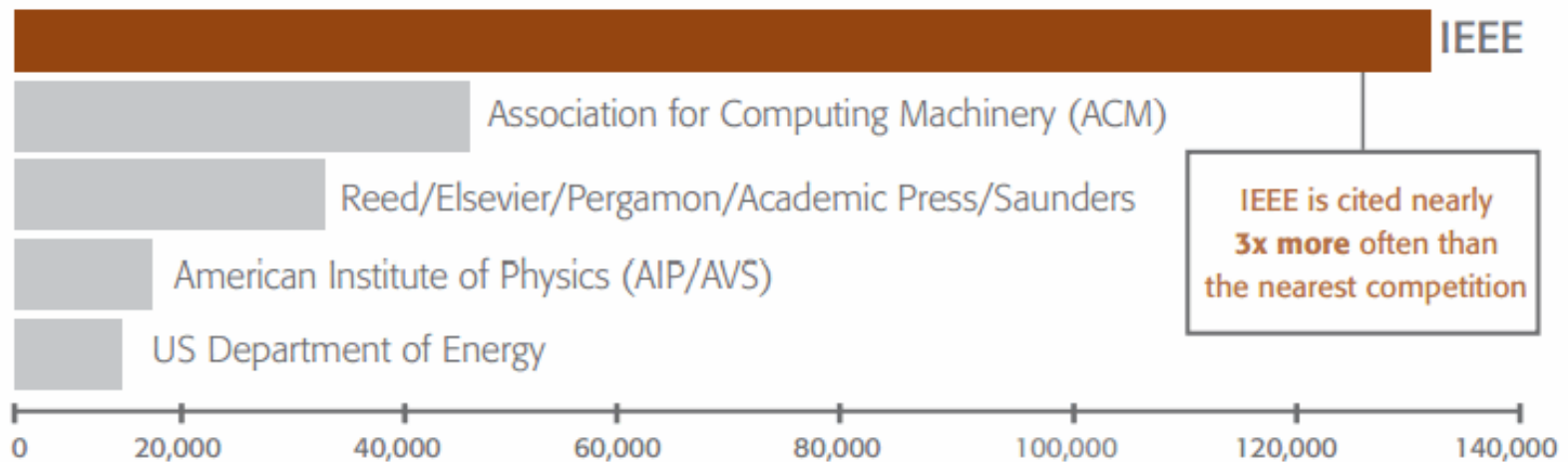
CERN's Large Hadron Collider

- Large Hadron Collider is built with IEEE
- CERN downloaded more than 50,000 IEEE documents the 12 months preceding project completion

IEEE is your gateway to the most vital information in Engineering and Technology

Petroleum and Natural Gas Technology

Patent References from the Top 5 Publishers



Source: 1790 Analytics LLC, Copyright 2011

IEEE Content in Petroleum and Natural Gas

Alternative Fuels	
Hybrid Vehicle	18,100+ documents
Wind Energy/Power	18,000+ documents
Solar Energy/Power and Photovoltaics	24,100+ documents
Biomass	9,500+ documents
Hydrogen Energy/Storage/Transfer	2,000+ documents
Alternative Fuel/Energy	4,500+ documents

Petroleum, Oil, Natural Gas and Coal	
Hydrocarbons	11,800+ documents
Natural Gas	9,400+ documents
Petroleum	30,400+ documents
Coal	27,500+ documents

IEEE Content in Petroleum and Natural Gas

Fuel Exploration And Processing	
Microtechnology/MEMS	47,000+ documents
Remote Sensing	75,600+ documents
Oil Fields, Exploration, Drilling	3,600+ documents

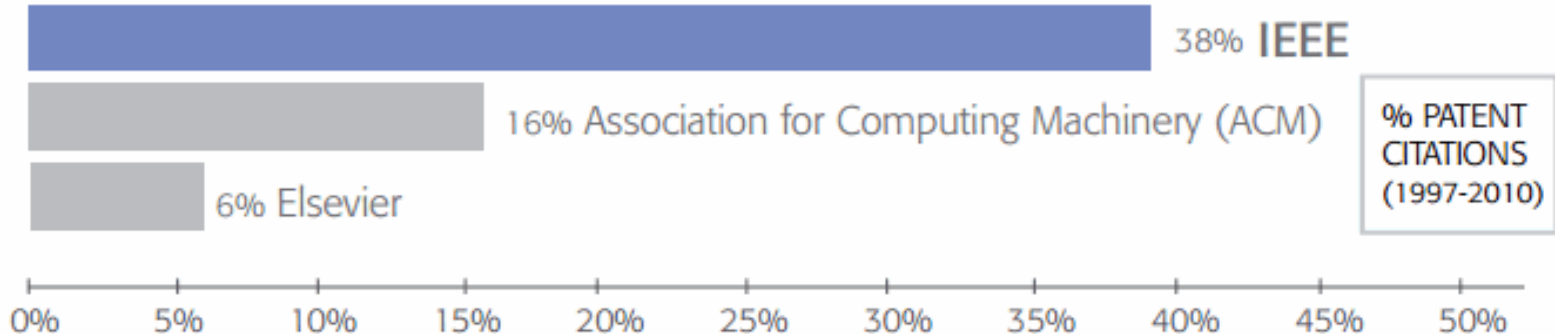
Energy And Energy Sources	
Cogeneration	5,200+ documents
Energy Conversion	41,600+ documents
Energy Management	22,100+ documents
Energy Research	10,700+ documents
Energy Sources	17,400+ documents

Counts are accurate as of May 2011 and include IEEE/IET content.

Computer Hardware Technology IEEE Content

Top-Cited Publishers in Computer Hardware Patents

IEEE is the top scientific and technical research source with 38% of all patent citations in computer hardware.

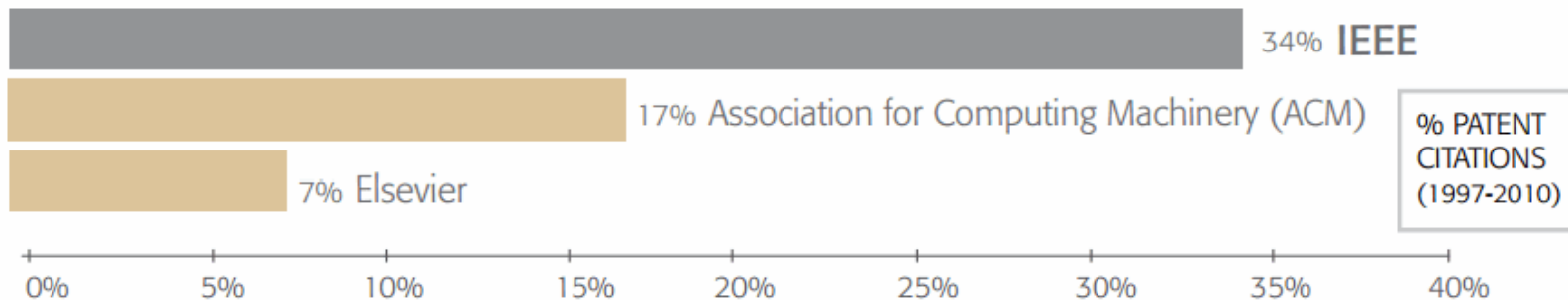


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Computer Software Technology

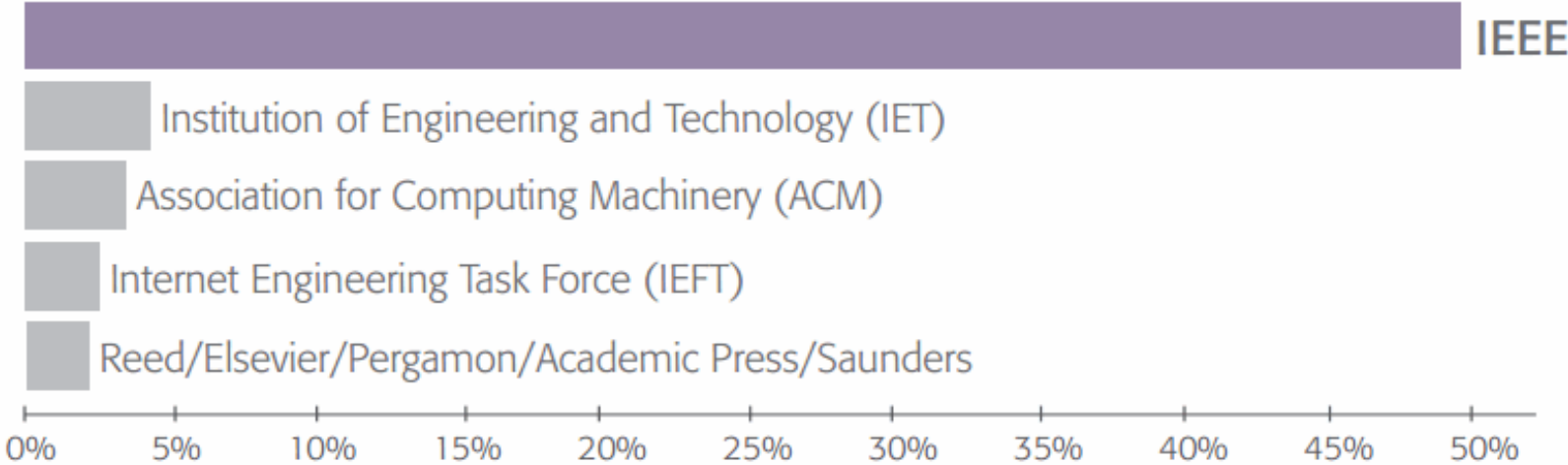
Top-Cited Publishers in Computer Software Patents

IEEE is the top scientific and technical research source with 34% of all patent citations in computer software.



Telecommunications Technology

Telecommunications Patent References from the Top 5 Publishers



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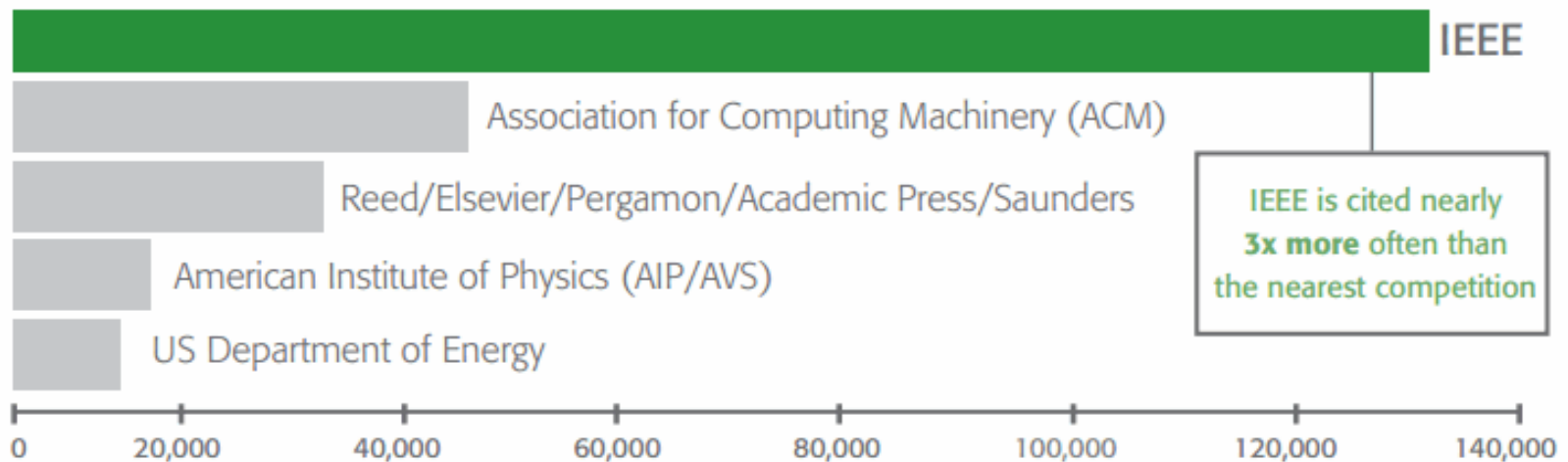
IEEE Content in Telecommunications Technology

Wireless Communications	160,500+ documents
WiMax — 802.16	19,300+ documents
MIMO — Multiple Inputs, Multiple Outputs	55,200+ documents
OFDM and Multi Carrier Systems	45,200+ documents
Ultra Wide-band Communications	8,100+ documents
3G/4G Network	44,100+ documents
Sensor Networks	70,400+ documents
Wireless Mesh	7,400+ documents
Smart Antennas	10,500+ documents
Cognitive Radio/Software Defined Radio	14,000+ documents

Counts are accurate as of May 2011 and include IEEE/IET content.

Aerospace and Defense Technology

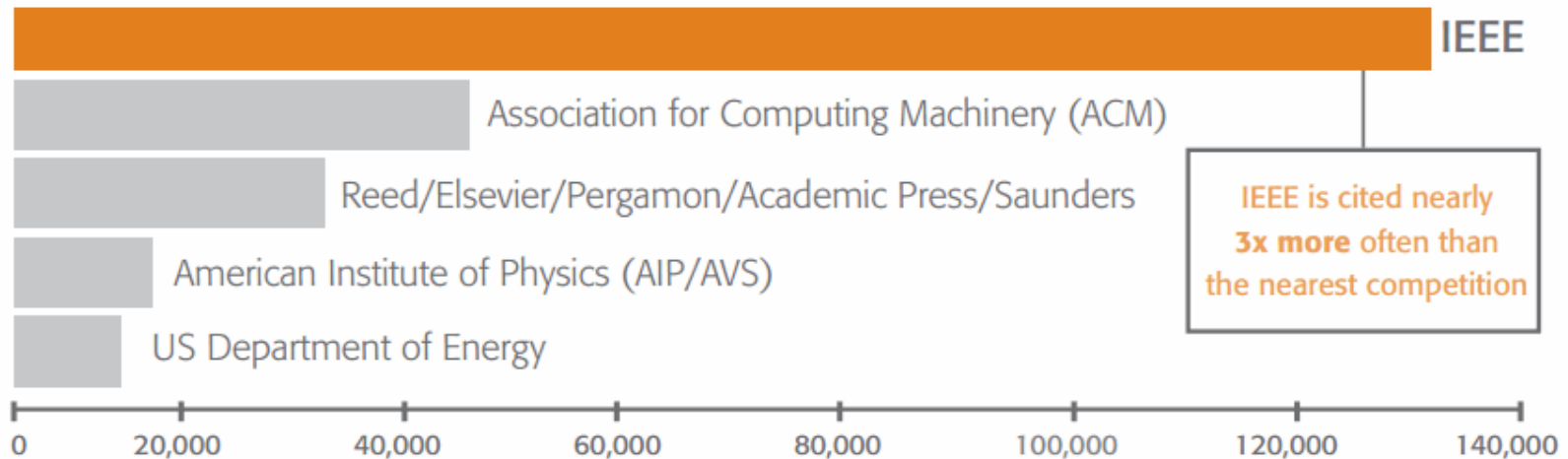
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Electronics Technology

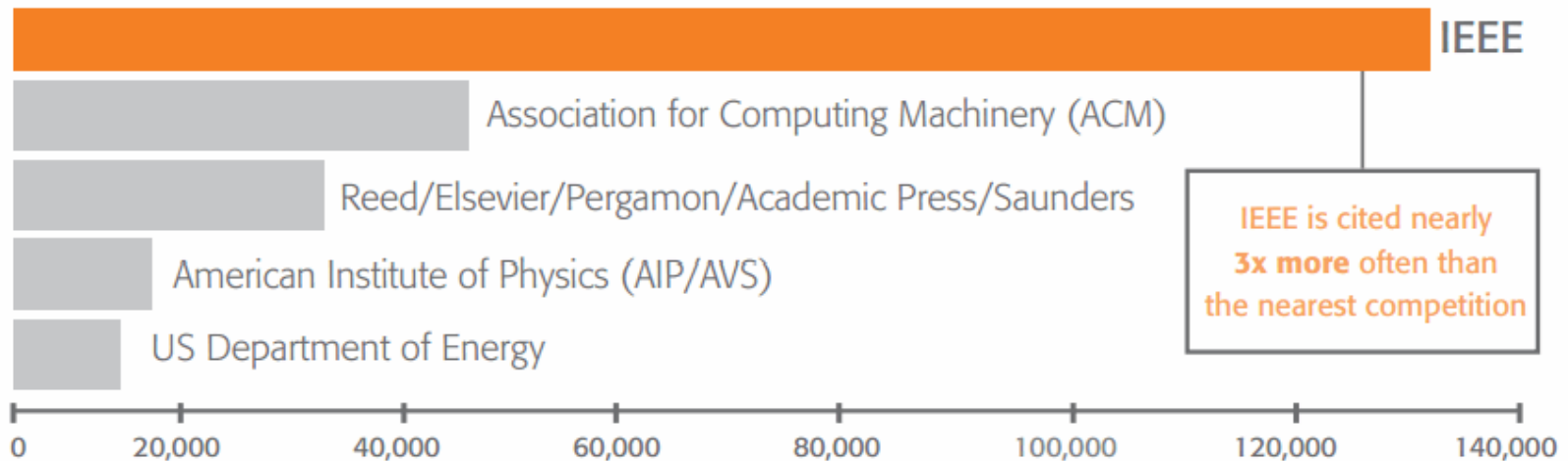
Patent References from the Top 5 Publishers



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Nanotechnology

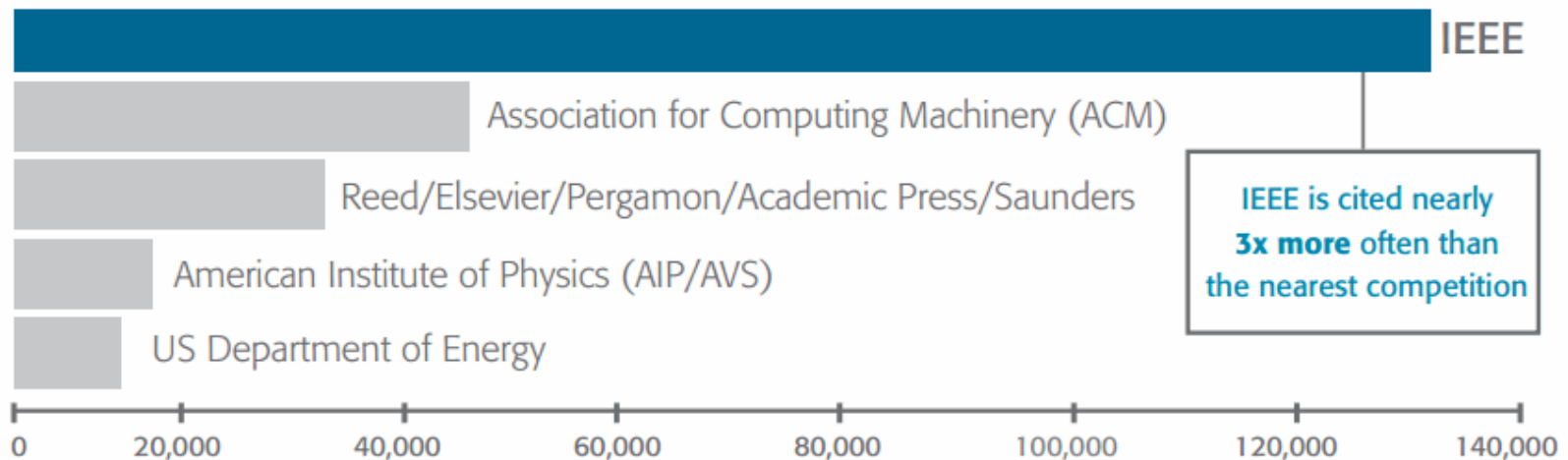
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Biometrics Technology

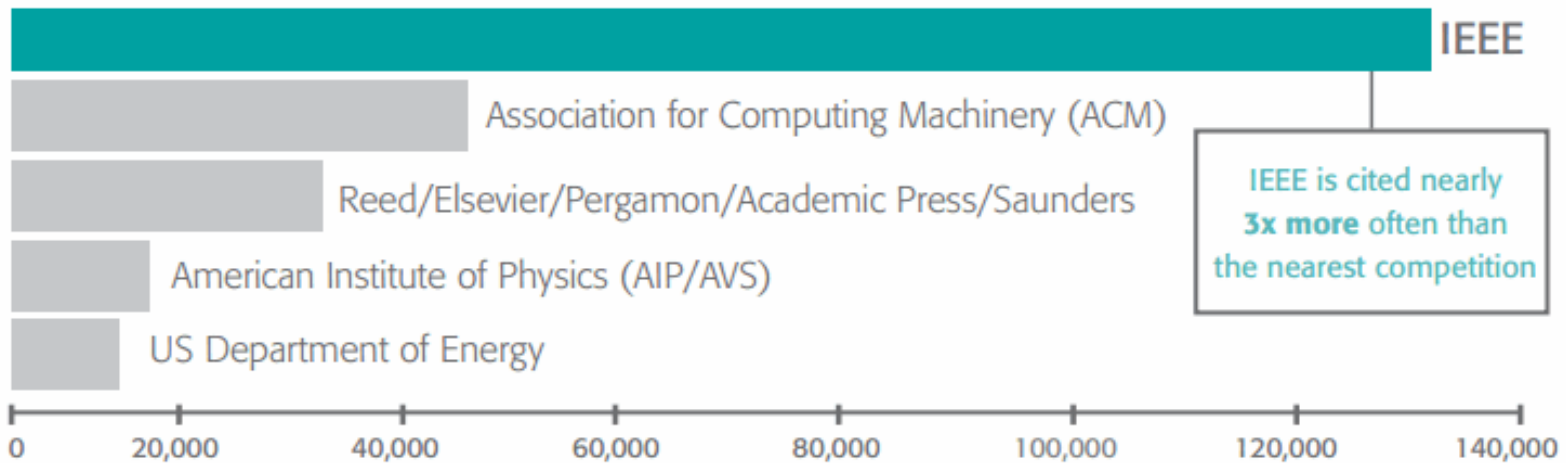
Patent References from the Top 5 Publishers



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Biomedical Engineering and Medical Device Technology

Patent References from the Top 5 Publishers



Source: 1790 Analytics LLC, Copyright 2011

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- IEEE eLearning Library (online courses)
- IBM Journal of Research and Development

Conclusion

- With proceedings came through 100 years IEEE brings to higher academic and research institutions the solutions they need to make research effective and efficient.
- With many options to choose from, academic librarians can now find the subscription that is right for their institution size and course offerings.

Thank you for attention

Questions?