



IEL Newsletter

— 2013 年 12 月特刊：2012 年 IEEE 期刊影响因子及相关评价指标情况概览

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IEEE 成立于 1884 年，是全球最大的技术行业协会，凭借其多样化的出版物、会议、教育论坛和开发标准，在激励未来几代人进行技术创新方面做出了巨大的贡献，其数据库产品 IEL (IEEE/IET Electronic Library) 自 2001 年进入中国以来，为中国的学者和研究人员提供了世界领先的科技信息。

■ 影响因子、特征因子分值及论文影响分值的概念和介绍

影响因子 (Impact Factor 简称 IF) 是美国 ISI (科学信息研究所) 的 JCR (Journal Citation Reports) 中的一项数据，即某期刊前两年发表的论文在统计当年的被引用总次数除以该期刊前两年内发表的论文总数。它是一种测试期刊有用性和显示度的指标，也是测度期刊的学术水平，乃至论文质量的有效指标。

特征因子 分值涵盖了前五年发表的文献在 JCR 统计当年的被引用次数，同时也统计了高被引期刊。特征因子分值越高，其学术影响力也越大。

论文影响分值 代表了该期刊文献在出版后第一个五年内的平均影响。

IEEE 出版的 IEL 数据库蕴含当今科技领域权威的科研信息。IEL 在电子电气工程、通讯技术、计算机科学、人工智能、机器人、自动化控制和遥感领域的期刊影响因子、特征因子分值和论文影响分值都名列前茅。详情参见下表。

■ IEEE 期刊的影响因子在各个学科领域的排名情况

电气电子工程领域

Rank	Title
1	Progress in Quantum Electronics
2	Proceedings of the IEEE
3	IEEE Transactions on Fuzzy Systems
4	IEEE Transactions on Industrial Electronics
5	IEEE Transactions on Pattern Analysis and Machine Intelligence
6	IEEE Transactions on Power Electronics
7	IEEE Journal of Selected Topics in Quantum Electronics
8	IEEE Transactions on Medical Imaging
9	IEEE Transactions on Neural Networks and Learning Systems
10	IEEE Industrial Electronics Magazine
11	IEEE Wireless Communications Magazine
12	IEEE Communications Magazine
13	IEEE Transactions on Geoscience and Remote Sensing
14	International Journal of Electrical Power & Energy Systems
15	IEEE Signal Processing Magazine
16	IEEE Journal of Selected Topics in Signal Processing
17	IEEE Transactions on Image Processing



18	IEEE/ASME Transactions on Mechatronics
19	IEEE Journal on Selected Areas in Communications
20	IEEE Transactions on Intelligent Transportation Systems

通讯技术领域

Rank	Title
1	IEEE Communications Surveys and Tutorials
2	IEEE Wireless Communications Magazine
3	IEEE Communications Magazine
4	IEEE Journal on Selected Areas in Communications
5	IEEE Network
6	IEEE/OSA Journal of Lightwave Technology
7	IEEE Transactions on Wireless Communications
8	IEEE Transactions on Mobile Computing
9	IEEE Transactions on Antennas and Propagation
10	IEEE Transactions on Broadcasting

自动化控制领域

Rank	Title
1	IEEE Transactions on Industrial Electronics
3	IEEE Transactions on Industrial Informatics
4	IEEE Transactions on Systems, Man and Cybernetics: Part B—Cybernetics
5	IEEE/ASME Transactions on Mechatronics

计算机科学的人工智能领域

Rank	Title
1	IEEE Transactions on Fuzzy Systems
3	IEEE Transactions on Evolutionary Computation
4	IEEE Transactions on Pattern Analysis and Machine Intelligence
5	IEEE Computational Intelligence Magazine

计算机的控制学领域

Rank	Title
1	IEEE Transactions on Systems, Man and Cybernetics: Part B—Cybernetics
3	IEEE Transactions on Systems, Man and Cybernetics: Part C—Applications and Reviews
4	IEEE Transactions on Systems, Man and Cybernetics: Part A—Systems and Humans

计算机科学的信息系统领域

Rank	Title
2	IEEE Communications Surveys and Tutorials
5	IEEE Wireless Communications Magazine

计算机科学的软件工程领域

Rank	Title
3	IEEE Transactions on Software Engineering
5	IEEE Transactions on Services Computing

计算机科学的硬件结构领域

Rank	Title
1	IEEE Transactions on Neural Networks and Learning Systems
2	IEEE Wireless Communications Magazine
3	IEEE Network
5	IEEE Micro Magazine

计算机科学的理论与方法领域

Rank	Title
1	IEEE Transactions on Evolutionary Computation
2	IEEE Transactions on Neural Networks and Learning Systems

航天工程领域

Rank	Title
2	IEEE Transactions on Aerospace and Electronic Systems

土木工程领域

Rank	Title
3	IEEE Transactions on Intelligent Transportation Systems

工业工程领域

Rank	Title
1	IEEE Transactions on Industrial Informatics

制造工程领域

Rank	Title
1	IEEE/ASME Transactions on Mechatronics

成像科学和摄影技术领域

Rank	Title
2	IEEE Transactions on Medical Imaging
5	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing

仪器与仪表领域

Rank	Title
2	IEEE Transactions on Industrial Electronics

遥感技术领域

Rank	Title
2	IEEE Transactions on Geoscience and Remote Sensing
4	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing

交通运输科学与技术领域

Rank	Title
2	IEEE Transactions on Intelligent Transportation Systems

**机器人学领域**

Rank	Title
2	IEEE Transactions on Robotics
3	IEEE Robotics & Automation Magazine
5	IEEE Transactions on Autonomous Mental Development

■ IEEE 期刊的特征因子在电子电气领域和通讯技术领域的排名情况

电气电子工程领域——排名前十名占十席

Rank	Title
1	IEEE Transactions on Signal Processing
2	IEEE Transactions on Wireless Communications
3	IEEE Transactions on Information Theory
4	IEEE Transactions on Pattern Analysis and Machine Intelligence
5	IEEE Transactions on Industrial Electronics
6	IEEE Transactions Automatic Control
7	Automatica
8	IEEE Journal of Solid-State Circuits
9	Expert Systems with Applications
10	Proceedings of the IEEE

通讯技术领域——排名前十名占十席

Rank	Title
1	IEEE Transactions on Wireless Communications
2	IEEE Transactions on Antennas and Propagation
3	IEEE/OSA Journal of Lightwave Technology
4	IEEE Journal on Selected Areas in Communications
5	IEEE Transactions on Vehicular Technology
6	IEEE Transactions on Communications
7	IEEE Communications Magazine
8	IEEE Communications Letters
9	IEEE Antennas and Wireless Propagation Letters
10	IEEE/ACM Transactions on Networking

■ IEEE 期刊的论文影响分值在电子电气和通讯技术领域的排名情况

电气电子工程领域——排名前十名占十席

Rank	Title
1	Proceedings of the IEEE
2	IEEE Signal Processing Magazine
3	Progress in Quantum Electronics
4	IEEE Transactions on Pattern Analysis and Machine Intelligence
5	IEEE Journal on Selected Areas in Communications
6	IEEE Journal of Selected Topics in Signal Processing
7	IEEE Journal of Solid-State Circuits



8	IEEE Communications Magazine
9	IEEE Transactions on Image Processing
10	Automatica

通讯技术领域——排名前十名占十席

Rank	Title
1	IEEE Journal on Selected Areas In Communications
2	IEEE Communications Surveys and Tutorials
3	IEEE Communications Magazine
4	IEEE Wireless Communications Magazine
5	IEEE Transactions on Mobile Computing
6	IEEE/ACM Transactions on Networking
7	IEEE Transactions on Wireless Communications
8	IEEE Network
9	IEEE Pervasive Computing Magazine
10	ACM Transactions on Sensor Networks

■ IEEE 期刊影响因子、特征因子分值和论文影响分值一览 —— 根据影响因子排名

IF Rank 2012	Abbreviated Journal Title	ISSN	2012 Total Cites	Impact Factor (IF)	5-Year Impact Factor	Eigenfactor o-r Score	Article Influence Score
1	Proceedings of the IEEE	0018-9219	18840	6.911	7.694	0.04144	3.692
2	IEEE Transactions on Fuzzy Systems	1063-6706	6237	5.484	4.885	0.01116	1.199
3	IEEE Transactions on Industrial Electronics	0278-0046	17404	5.165	5.078	0.04925	1.24
4	IEEE Communications Surveys & Tutorials	1553-877X	1276	4.818	6.348	0.00603	2.492
5	IEEE Transactions on Evolutionary Computation	1089-778X	5667	4.81	6.226	0.00837	1.768
6	IEEE Transactions on Pattern Analysis and Machine Intelligence	0162-8828	24947	4.795	6.144	0.05237	3.235
7	IEEE Computational Intelligence Magazine	1556-603X	495	4.629	3.808	0.00214	1.235
8	IEEE Transactions on Power Electronics	0885-8993	12680	4.08	4.42	0.0264	0.961
9	IEEE Journal of Selected Topics in Quantum Electronics	1077-260X	7262	4.078	3.606	0.02425	1.429
10	IEEE Transactions on Medical Imaging	0278-0062	11439	4.027	4.268	0.02018	1.4
11	IEEE Transactions on Neural Networks and Learning Systems	2162-237X	9766	3.766	3.632	0.01666	1.076
12	IEEE Industrial Electronics Magazine	1932-4529	304	3.758	3.646	0.00187	1.303
13	IEEE Wireless Communications	1536-1284	1898	3.74	3.248	0.00763	1.404
14	IEEE Communications Magazine	0163-6804	6790	3.661	3.797	0.02721	1.672
15	IEEE Transactions on Geoscience and Remote Sensing	0196-2892	19794	3.467	3.612	0.03085	0.926
16	IEEE Transactions on Industrial Informatics	1551-3203	969	3.381	3.191	0.00272	0.675
17	IEEE Signal Processing Magazine	1053-5888	4516	3.368	6.895	0.01964	3.555
18	IEEE Journal of Selected Topics in Signal Processing	1932-4553	1709	3.297	3.819	0.01537	1.988
19	IEEE Transactions on Neural Systems and Rehabilitation Engineering	1534-4320	2372	3.255	3.163	0.00619	1.011
20	IEEE Transactions on Systems, Man, and Cybernetics, Part B:	1083-4419	5821	3.236	3.949	0.01749	1.446



	Cybernetics						
21	IEEE Transactions on Image Processing	1057-7149	13814	3.199	4.017	0.03545	1.639
22	IEEE/ASME Transactions on Mechatronics	1083-4435	2878	3.135	3.386	0.00705	0.897
23	IEEE Journal on Selected Areas in Communications	0733-8716	9754	3.121	4.395	0.03366	2.493
24	IEEE Transactions on Intelligent Transportation Systems	1524-9050	2203	3.064	3.263	0.00509	0.695
25	IEEE Journal of Solid-State Circuits	0018-9200	12574	3.063	3.548	0.04253	1.751
26	IEEE Transactions on Power Systems	0885-8950	13972	2.921	3.601	0.01862	0.907
27	IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing	1939-1404	771	2.874	2.815	0.00227	0.599
28	IEEE Network	0890-8044	1305	2.853	2.642	0.00383	1.149
29	IEEE Transactions on Signal Processing	1053-587X	19417	2.813	3.068	0.05842	1.287
30	IEEE Electron Device Letters	0741-3106	9589	2.789	2.605	0.03611	0.976
31	IEEE Transactions on Biomedical Circuits and Systems	1932-4545	667	2.743	3.146	0.00463	1.289
32	IEEE Engineering in Medicine and Biology Magazine	0739-5175	1508	2.727	1.526	0.00844	2.29
33	IEEE Transactions on Automatic Control	0018-9286	23664	2.718	3.411	0.04492	1.538
34	IEEE Transactions on Information Theory	0018-9448	28851	2.621	3.069	0.05617	1.375
35	IEEE Transactions on Software Engineering	0098-5589	4208	2.588	3.371	0.00586	1.332
36	IEEE Transactions on Robotics	1552-3098	7474	2.571	3.643	0.01374	1.319
37	Journal of Lightwave Technology	0733-8724	14008	2.555	2.319	0.03498	0.828
38	IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews	1094-6977	2037	2.548	3.105	0.00685	1.047
39	IEEE Robotics & Automation Magazine	1070-9932	1163	2.484	3.097	0.00389	1.262
40	IEEE Transactions on Services Computing	1939-1374	244	2.46		0.00138	
41	IEEE Transactions on Energy Conversion	0885-8969	5201	2.427	3.461	0.0124	1.18
42	IEEE Transactions on Wireless Communications	1536-1276	10702	2.418	2.744	0.05717	1.191
43	IEEE Transactions on Mobile Computing	1536-1233	2844	2.395	3.071	0.01427	1.403
44	IEEE Micro	0272-1732	1361	2.386	2.706	0.00537	1.501
45	IEEE Control Systems	1066-033X	2254	2.372	4.329	0.00554	2.211
46	IEEE Photonics Journal	1943-0655	821	2.356	2.523	0.00446	0.911
47	IEEE Transactions on Biomedical Engineering	0018-9294	12805	2.348	2.525	0.02192	0.744
48	IEEE Transactions on Antennas and Propagation	0018-926X	19135	2.332	2.648	0.03646	0.801
49	IEEE Transactions on Reliability	0018-9529	2976	2.293	2.067	0.00481	0.764
50	IEEE Transactions on Circuits and Systems I: Regular Papers	1549-8328	7108	2.24	2.118	0.0254	1.074
51	IEEE Transactions on Microwave Theory and Techniques	0018-9480	15175	2.229	2.33	0.04033	1.222
52	IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans	1083-4427	2785	2.183	2.44	0.00728	0.767
53	IEEE Transactions on Autonomous Mental Development	1943-0604	155	2.170	2.258	0.00052	0.454
54	Journal of Microelectromechanical Systems	1057-7157	5266	2.129	2.439	0.01176	0.848
55	IEEE Transactions on Broadcasting	0018-9316	1458	2.087	2.027	0.00551	0.757
56	IEEE Transactions on Vehicular Technology	0018-9545	7393	2.063	2.019	0.0296	0.795
57	IEEE Transactions on Electron Devices	0018-9383	14467	2.062	2.268	0.03426	0.829
58	IEEE Pervasive Computing	1536-1268	1219	2.055	2.566	0.00356	1.114
59	IEEE Internet Computing	1089-7801	1477	2.039	2.498	0.00481	1.034



60	IEEE Photonics Technology Letters	1041-1135	13343	2.038	1.774	0.03285	0.598
61	IEEE/ACM Transactions on Networking	1063-6692	4754	2.014	2.733	0.01522	1.278
62	IEEE Transactions on Control Systems Technology	1063-6536	4147	2.000	2.62	0.01196	1.009
63	IEEE Transactions on Information Technology in Biomedicine	1089-7771	2232	1.978	2.327	0.00599	0.625
64	IEEE Intelligent Systems	1541-1672	1626	1.930	2.538	0.00361	0.924
65	IEEE Transactions on Visualization and Computer Graphics	1077-2626	3446	1.898	2.445	0.0166	1.093
66	IEEE Transactions on Information Forensics and Security	1556-6013	1134	1.895	2.259	0.00696	0.951
67	IEEE Transactions on Knowledge and Data Engineering	1041-4347	4094	1.892	2.426	0.01256	1.129
68	IEEE Journal of Quantum Electronics	0018-9197	9642	1.830	1.844	0.01112	0.657
69	IEEE Geoscience and Remote Sensing Letters	1545-598X	2579	1.823	1.981	0.01042	0.662
70	IEEE Transactions on Ultrasonics, Ferroelectrics and Frequency Control	0885-3010	7469	1.822	1.889	0.01345	0.514
71	IEEE Transactions on Circuits and Systems for Video Technology	1051-8215	5180	1.819	2.556	0.0171	1.112
72	IEEE Transactions on NANOTECHNOL	1536-125X	1991	1.800	1.924	0.00804	0.738
73	IEEE Transactions on Parallel and Distributed Systems	1045-9219	3091	1.796	2.031	0.01027	0.822
74	IEEE Microwave and Wireless Components Letters	1531-1309	4054	1.784	1.837	0.02369	1.041
75	IEEE Transactions on Multimedia	1520-9210	2217	1.754	2.158	0.01042	0.987
76	IEEE Transactions on Communications	0090-6778	11280	1.750	1.743	0.02828	0.913
77	Computing in Science & Engineering	1521-9615	832	1.729	1.676	0.00369	0.842
78	IEEE Transactions on Computational Intelligence and AI in Games	1943-068X	134	1.694	1.625	0.00036	0.287
79	Computer	0018-9162	3969	1.675	2.403	0.00944	1.205
80	IEEE Transactions on Audio, Speech, and Language Processing	1558-7916	2251	1.675	1.927	0.00979	0.627
81	IEEE Signal Processing Letters	1070-9908	3779	1.674	1.595	0.01602	0.802
82	IEEE Transactions on Automation Science and Engineering	1545-5955	871	1.674	1.859	0.00472	0.731
83	IEEE Transactions on Industry Applications	0093-9994	8667	1.672	1.989	0.01547	0.778
84	IEEE Circuits and Systems Magazine	1531-636X	319	1.667	1.869	0.00118	0.8
85	IEEE Antennas and Wireless Propagation Letters	1536-1225	3524	1.667	1.744	0.01665	0.649
86	Journal of Display Technology	1551-319X	1075	1.663	2.051	0.00525	0.768
87	IEEE Design & Test of Computers	0740-7475	847	1.623	1.456	0.00249	0.662
88	IEEE Software	0740-7459	1758	1.616	1.584	0.00312	0.596
89	IEEE/ACM Transactions on Computational Biology and Bioinformatics	1545-5963	1027	1.616	1.748	0.00515	0.747
90	IEEE Power and Energy Magazine	1540-7977	751	1.582	2.663	0.00374	1.054
91	IEEE Transactions on Power Delivery	0885-8977	8922	1.519	1.737	0.01517	0.538
92	IEEE Transactions on Device and Materials Reliability	1530-4388	1146	1.516	1.76	0.00372	0.614
93	IEEE Microwave Magazine	1527-3342	838	1.495	1.68	0.00447	0.948
94	IEEE Sensors Journal	1530-437X	3961	1.475	1.758	0.01364	0.522
95	IEEE Transactions on Magnetics	0018-9464	17491	1.422	1.35	0.03573	0.419
96	IEEE Transactions on Haptics	1939-1412	140	1.393	1.5	0.00063	0.396
97	IEEE Transactions on Computers	0018-9340	5598	1.379	1.726	0.01039	0.865
98	IEEE Transactions on Dielectrics and Electrical Insulation	1070-9878	3730	1.360	1.415	0.00529	0.272
99	IEEE Transactions on Instrumentation and Measurement	0018-9456	6278	1.357	1.382	0.01467	0.408
100	IEEE Transactions on Electromagnetic Compatibility	0018-9375	2350	1.327	1.329	0.00435	0.411
101	IEEE Transactions on Circuits and Systems II: Express Briefs	1549-7747	3667	1.327	1.519	0.01603	0.874



102	IEEE Spectrum	0018-9235	945	1.322	1.047	0.00419	0.756
103	IEEE Electrical Insulation Magazine	0883-7554	656	1.322	1.361	0.00098	0.458
104	IEEE Transactions on Aerospace and Electronic Systems	0018-9251	5915	1.299	1.767	0.00802	0.617
105	IEEE Transactions on NanoBioscience	1536-1241	663	1.286	1.75	0.00171	0.517
106	IEEE Systems Journal	1932-8184	285	1.270	1.234	0.00173	0.445
107	IEEE Transactions on Components, Packaging and Manufacturing Technology	2156-3950	3792	1.261	1.355	0.00914	0.442
108	IEEE Computer Graphics and Applications	0272-1716	1556	1.228	1.741	0.00346	1.003
109	IEEE Transactions on Nuclear Science	0018-9499	9126	1.219	1.317	0.01618	0.379
110	IEEE Transactions on Very Large Scale Integration (VLSI) Systems	1063-8210	2328	1.218	1.252	0.01025	0.644
111	IEEE Transactions on Applied Superconductivity	1051-8223	6058	1.199	1.011	0.01476	0.24
112	IEEE Antennas and Propagation Magazine	1045-9243	1572	1.180	1.446	0.00462	0.587
113	IEEE Communications Letters	1089-7798	4220	1.160	1.222	0.01709	0.549
114	IEEE Journal of Oceanic Engineering	0364-9059	2281	1.157	1.445	0.00338	0.591
115	IEEE Vehicular Technology Magazine	1556-6072	273	1.105	1.429	0.00151	0.681
116	IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems	0278-0070	3392	1.093	1.323	0.00725	0.461
117	IEEE Transactions on Consumer Electronics	0098-3063	3050	1.087	1.092	0.00833	0.307
118	IEEE Transactions on DEPEND SECURE	1545-5971	530	1.059	1.576	0.0021	0.704
119	IEEE MultiMedia	1070-986X	492	0.984	1.145	0.00151	0.567
120	IEEE Security & Privacy	1540-7993	662	0.962	1.019	0.00259	0.46
121	IEEE Transactions on Education	0018-9359	1071	0.950	1.177	0.00162	0.277
122	IEEE Transactions on Engineering Management	0018-9391	1704	0.893	1.721	0.00262	0.595
123	IEEE Transactions on Plasma Science	0093-3813	6665	0.868	1.024	0.01563	0.362
124	IEEE Transactions on Semiconductor Manufacturing	0894-6507	1071	0.862	1.003	0.0017	0.296
125	Computer Architecture Letters	1556-6056	100	0.852		0.00073	
126	IEEE Transactions on Learning Technologies	1939-1382	106	0.758	0.893	0.0006	0.305
127	IEEE Annals of the History of Computing	1058-6180	157	0.575	0.491	0.00036	0.193
128	IEEE Instrumentation & Measurement Magazine	1094-6969	261	0.556	0.828	0.00112	0.379
129	IEEE Pulse	2154-2287	46	0.545	0.545	0.00013	0.113
130	IEEE Technology and Society Magazine	0278-0097	145	0.542	0.621	0.00044	0.214
131	IEEE Industry Applications Magazine	1077-2618	413	0.483	0.538	0.00093	0.238
132	IT Professional	1520-9202	255	0.482		0.00124	
133	IEEE Aerospace and Electronic Systems Magazine	0885-8985	471	0.343	0.456	0.00126	0.205
134	Canadian Journal of Electrical and Computer Engineering	0840-8688	79	0.333	0.415	0.00028	0.198
135	IEEE Latin America Transactions	1548-0992	136	0.218		0.00023	

* 数据来自 2013 年 6 月公布的 2012 年 JCR 期刊引用报告

