

# computer network security

view online

Report generated from year 2013 to 2021

### Articles published

20970 articles published with this Controlled term between 2013 - 2021

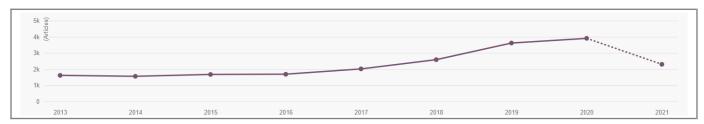
### Articles published % change

Between 2013 - 2020 article output increased 142.17%

#### Times cited

Articles published with this controlled term between 2013 - 2021 have been cited 17756 times, with an average of 0.85 citations per article

### Controlled term over time



| # | Year | Articles | % Change | ₩           | ₩               |
|---|------|----------|----------|-------------|-----------------|
|   |      |          |          | Times cited | Avg times cited |
| 1 | 2013 | 1615     | n/a      | 3323        | 2.06            |
| 2 | 2014 | 1559     | -3.47%   | 3433        | 2.20            |
| 3 | 2015 | 1672     | 7.25%    | 3341        | 2.00            |
| 4 | 2016 | 1686     | 0.84%    | 3040        | 1.80            |
| 5 | 2017 | 2018     | 19.69%   | 2158        | 1.07            |
| 6 | 2018 | 2589     | 28.30%   | 1632        | 0.63            |
| 7 | 2019 | 3619     | 39.78%   | 643         | 0.18            |
| 8 | 2020 | 3911     | 8.07%    | 171         | 0.04            |
| 9 | 2021 | 2301     | n/a      | 15          | 0.01            |



### **Co-occurring concepts**

| #  | Controlled terms                   | Articles |
|----|------------------------------------|----------|
| 1  | Internet                           | 4637     |
| 2  | Internet of Things                 | 3926     |
| 3  | telecommunication traffic          | 3336     |
| 4  | learning (artificial intelligence) | 2577     |
| 5  | IP networks                        | 1903     |
| 6  | software defined networking        | 1789     |
| 7  | data privacy                       | 1684     |
| 8  | cryptography                       | 1656     |
| 9  | cloud computing                    | 1504     |
| 10 | protocols                          | 1495     |
| 11 | invasive software                  | 1493     |
| 12 | security of data                   | 1474     |
| 13 | cryptographic protocols            | 1414     |
| 14 | pattern classification             | 1242     |
| 15 | authorisation                      | 1236     |
| 16 | transport protocols                | 1124     |
| 17 | telecommunication security         | 1019     |
| 18 | computer network management        | 817      |
| 19 | telecommunication network routing  | 782      |
| 20 | wireless LAN                       | 773      |

Total terms : 2022



| #  | Subject classifications   | Articles |
|----|---|----------|
| 1  | C6000 - Computer software   | 20546    |
| 2  | C6100 - Software techniques and systems                               | 20543    |
| 3  | C6130 - Data handling techniques                                      | 20472    |
| 4  | C6130S - Data security  | 20453    |
| 5  | B6000 - Communications  | 19804    |
| 6  | B6200 - Telecommunication   | 19686    |
| 7  | B6210 - Telecommunication applications                                | 19506    |
| 8  | B6210L - Computer communications                                      | 19481    |
| 9  | C5000 - Computer hardware   | 18825    |
| 10 | C5600 - Data communication equipment and techniques                   | 18538    |
| 11 | C5620 - Computer networks and techniques                              | 18386    |
| 12 | B6100 - Information and communication theory                          | 7874     |
| 13 | B6150 - Communication system theory                                   | 5551     |
| 14 | C5620W - Other computer networks                                      | 4937     |
| 15 | C1000 - Systems and control theory                                    | 4646     |
| 16 | B0000 - General topics, engineering mathematics and materials science | 4578     |
| 17 | B6150M - Protocols  | 4453     |
| 18 | C1100 - Mathematical techniques                                       | 4437     |
| 19 | B0200 - Engineering mathematics and mathematical techniques           | 3958     |
| 20 | B6120 - Modulation and coding methods                                 | 3760     |

Total codes: 848

## Top organisations

| #  | Organisations  | Articles |
|----|--|----------|
| 1  | Beijing University of Posts and Telecommunications Beijing, China academic               | 293      |
| 2  | Tsinghua University Beijing, China academic  | 256      |
| 3  | Institute of Information Engineering Chinese Academy of Sciences Beijing, China academic | 229      |
| 4  | National University of Defense Technology<br>Changsha, China<br>academic                 | 199      |
| 5  | Xidian University Xian, China academic   | 167      |
| 6  | Universite Mohammed V de Rabat<br>Rabat, Morocco<br>academic                             | 164      |
| 7  | State Grid Corporation of China Beijing, China corporate                                 | 162      |
| 8  | University of Electronic Science and Technology of China<br>Chengdu, China<br>academic   | 143      |
| 9  | Beijing Jiaotong University<br>Beijing, China<br>academic                                | 133      |
| 10 | Nanjing University of Posts and Telecommunications Nanjing, China academic               | 127      |



| #  | Organisations  | Articles |
|----|--|----------|
| 11 | Southeast University Nanjing, China academic                         | 127      |
| 12 | National Institute of Technology Calicut, India academic             | 119      |
| 13 | Shanghai Jiao Tong University<br>Shanghai, China<br>academic         | 117      |
| 14 | Nanyang Technological University Singapore, Singapore academic       | 113      |
| 15 | University of New South Wales<br>Sydney, Australia<br>academic       | 110      |
| 16 | VIT University Vellore, India academic                               | 106      |
| 17 | Zhejiang University<br>Hangzhou, China<br>academic                   | 104      |
| 18 | Indian Institute of Technology Delhi<br>New Delhi, India<br>academic | 98       |
| 19 | Beijing Institute of Technology<br>Beijing, China<br>academic        | 96       |
| 20 | Deakin University Burwood, Australia academic                        | 94       |

Total organisations : 4210

## **Journals**

| #  | Journal  | Articles |
|----|--|----------|
| 1  | IEEE Access  | 633      |
| 2  | arXiv  | 628      |
| 3  | IEEE Internet of Things Journal  | 264      |
| 4  | Journal of Physics: Conference Series  | 207      |
| 5  | Computers & Comput | 168      |
| 6  | Applied Mechanics and Materials  | 159      |
| 7  | Security and Communication Networks  | 138      |
| 8  | Security and Communication Networks  | 127      |
| 9  | Sensors  | 119      |
| 10 | IEEE Transactions on Information Forensics and Security  | 117      |
| 11 | IOP Conference Series: Materials Science and Engineering   | 114      |
| 12 | Computer Networks  | 105      |
| 13 | IEEE Transactions on Network and Service Management  | 98       |
| 14 | International Journal of Advanced Computer Science and Applications  | 89       |
| 15 | Wireless Personal Communications   | 85       |
| 16 | Procedia Computer Science  | 83       |
| 17 | International Journal of Communication Systems   | 80       |
| 18 | IEEE Transactions on Industrial Informatics  | 76       |
| 19 | Advanced Materials Research  | 73       |
| 20 | Journal of Network and Computer Applications   | 73       |



Total journals: 886

### Conferences

| #     | Conference   | Articles |
|-------|--|----------|
| 1     | 2019 IEEE Global Communications Conference (GLOBECOM)  | 43       |
| 2     | 2020 IEEE Global Communications Conference (GLOBECOM 2020)   | 40       |
| 3     | 2018 17th IEEE International Conference On Trust, Security And Privacy In Computing And Communications/ 12th IEEE International Conference On Big Data Science And Engineering (TrustCom/BigDataSE). Proceedings | 33       |
| 4     | ICC 2019 - 2019 IEEE International Conference on Communications (ICC). Proceedings   | 32       |
| 5     | 2015 IEEE Conference on Communications and Network Security (CNS)  | 29       |
| 6     | 2019 IFIP/IEEE Symposium on Integrated Network and Service Management (IM)   | 28       |
| 7     | 2020 IEEE 19th International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom)  | 27       |
| 8     | ICC 2021 - IEEE International Conference on Communications   | 27       |
| 9     | 2019 18th IEEE International Conference On Trust, Security And Privacy In Computing And Communications/13th IEEE International Conference On Big Data Science And Engineering (TrustCom/BigDataSE)               | 26       |
| 10    | 2017 IEEE International Conference on Communications (ICC). Proceedings  | 25       |
| 11    | NOMS 2018 - 2018 IEEE/IFIP Network Operations and Management Symposium   | 25       |
| 12    | NOMS 2020 - 2020 IEEE/IFIP Network Operations and Management Symposium. Proceedings  | 25       |
| 13    | 2015 IEEE Military Communications Conference (MILCOM)  | 23       |
| 14    | ICC 2020 - 2020 IEEE International Conference on Communications (ICC). Proceedings   | 22       |
| 15    | 2015 IEEE International Conference on Signal Processing for Communications (ICC)   | 19       |
| 16    | 2016 IEEE Trustcom/BigDataSE/ISPA  | 19       |
| 17    | IEEE INFOCOM 2020 - IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS)  | 19       |
| 18    | 2016 2nd IEEE International Conference on Computer and Communications (ICCC). Proceedings  | 18       |
| 19    | 2016 IEEE International Conference on Communications (ICC)   | 18       |
| 20    | 2016 IEEE Military Communications Conference (MILCOM)  | 18       |
| Total | conferences : 5141   |          |

Total conferences: 5141

## Related controlled terms

| # | Broader terms              | Articles |
|---|----------------------------|----------|
| 1 | security of data           | 45937    |
| 2 | telecommunication security | 27172    |
| 3 | computer networks          | 3948     |

Total terms : 3

| # | Narrower terms | Articles |
|---|----------------|----------|
| 1 | firewalls      | 1012     |

Total terms : 1

| # | Related terms          | Articles |
|---|------------------------|----------|
| 1 | Internet               | 89624    |
| 2 | cryptography           | 40964    |
| 3 | authorisation          | 15371    |
| 4 | trusted computing      | 7904     |
| 5 | message authentication | 6180     |
| 6 | computer crime         | 5961     |



| #  | Related terms               | Articles |
|----|-----------------------------|----------|
| 7  | computer network management | 4194     |
| 8  | DP management               | 959      |
| 9  | control system security     | 276      |
| 10 | Bring Your Own Device       | 168      |

Total terms : 10

## **Related Subject classifications**

| # | Subject classifications                  |
|---|--|
| 1 | B6210L - Computer communications         |
| 2 | C0310S - Computing security management   |
| 3 | C5480 - Security aspects of hardware     |
| 4 | C5620 - Computer networks and techniques |
| 5 | C6130S - Data security                   |

Total codes : 5