**Mạng 5G: công nghệ bứt phá**

5G là thế hệ thứ năm của công nghệ di động không dây, cung cấp tốc độ tải lên và tải xuống nhanh hơn, kết nối ổn định hơn và dung lượng được cải thiện so với các mạng trước đây. 5G nhanh hơn và đáng tin cậy hơn nhiều so với các mạng 4G phổ biến hiện nay và có tiềm năng thay đổi cách chúng ta sử dụng internet để truy cập các ứng dụng, mạng xã hội và thông tin. Ví dụ: công nghệ như xe ô tô tự lái, ứng dụng trò chơi tiên tiến và phương tiện truyền phát trực tiếp yêu cầu kết nối dữ liệu tốc độ cao, đáng tin cậy sẽ được hưởng lợi rất nhiều từ kết nối 5G.

Để hiểu rõ hơn Cục Thông tin KH&CN quốc gia xin giới thiệu một số bài nghiên cứu đã được xuất bản chính thức và các bài viết được chấp nhận đăng trên những cơ sở dữ liệu học thuật chính thống.

**1. Sciencedirect**

1. The viability of Telesurgery Service in the Autonomous Region of the Azores, supported by the 5G Network  
Procedia Computer Science22 March 2023Volume 219 (Cover date: 2023)Pages 422-430  
Gualter de Medeiros SousaArnaldo Manuel Pinto Santos  
[https://www.sciencedirect.com/science//pii/S1877050923003174/pdfft?md5=e4279c7e73baa246ce6368c27abdd84b&pid=1-s2.0-S1877050923003174-main.pdf](https://www.sciencedirect.com/science/pii/S1877050923003174/pdfft?md5=e4279c7e73baa246ce6368c27abdd84b&pid=1-s2.0-S1877050923003174-main.pdf)  
  
2. A study on the impact of mobility on caching in non-standalone 5G vehicular networks  
Vehicular Communications2 March 2023Volume 41 (Cover date: June 2023) 100595  
Seyyed Amir Ahmad SiahpooshFatemeh Rezaei  
[https://www.sciencedirect.com/science//pii/S2214209623000256/pdfft?md5=412891295a0eec04d398c7c79084264c&pid=1-s2.0-S2214209623000256-main.pdf](https://www.sciencedirect.com/science/pii/S2214209623000256/pdfft?md5=412891295a0eec04d398c7c79084264c&pid=1-s2.0-S2214209623000256-main.pdf)  
  
3. A lightweight D2D authentication protocol for relay coverage scenario in 5G mobile network  
Computer Networks6 March 2023Volume 225 (Cover date: April 2023) 109679  
Ponjit BorgohainHiten Choudhury  
[https://www.sciencedirect.com/science//pii/S138912862300124X/pdfft?md5=3d3e37c9bc31a17d0085554c74d63497&pid=1-s2.0-S138912862300124X-main.pdf](https://www.sciencedirect.com/science/pii/S138912862300124X/pdfft?md5=3d3e37c9bc31a17d0085554c74d63497&pid=1-s2.0-S138912862300124X-main.pdf)  
  
4. The carbon footprint response to projected base stations of China's 5G mobile network  
Science of The Total Environment 31 January 2023 Volume 870 (Cover date: 20 April 2023) 161906  
Xiaodong Zhang, Philippe Ciais, Jianmin Ma  
[https://www.sciencedirect.com/science//pii/S0048969723005211/pdfft?md5=1bdb5e47053938b7630497fd1ed2e7aa&pid=1-s2.0-S0048969723005211-main.pdf](https://www.sciencedirect.com/science/pii/S0048969723005211/pdfft?md5=1bdb5e47053938b7630497fd1ed2e7aa&pid=1-s2.0-S0048969723005211-main.pdf)  
  
5. 5G/5G+ network management employing AI-based continuous deployment  
Applied Soft Computing 6 January 2023 Volume 134 (Cover date: February 2023) 109984  
Michał Panek, Adam Pomykała, Michał Woźniak  
[https://www.sciencedirect.com/science//pii/S1568494623000029/pdfft?md5=244dd2f39426275380e9c163e6d53075&pid=1-s2.0-S1568494623000029-main.pdf](https://www.sciencedirect.com/science/pii/S1568494623000029/pdfft?md5=244dd2f39426275380e9c163e6d53075&pid=1-s2.0-S1568494623000029-main.pdf)  
  
6. Energy efficient resource allocation method for 5G access network based on reinforcement learning algorithm  
Sustainable Energy Technologies and Assessments 9 January 2023 Volume 56 (Cover date: March 2023) 103020  
Shasha Zhao  
[https://www.sciencedirect.com/science//pii/S2213138823000127/pdfft?md5=1258fa72808c8da109c1c4af9982174e&pid=1-s2.0-S2213138823000127-main.pdf](https://www.sciencedirect.com/science/pii/S2213138823000127/pdfft?md5=1258fa72808c8da109c1c4af9982174e&pid=1-s2.0-S2213138823000127-main.pdf)  
  
7. Network load prediction and anomaly detection using ensemble learning in 5G cellular networks  
Computer Communications 31 October 2022 Volume 197 (Cover date: 1 January 2023) Pages 141-150  
Usman Haider, Muhammad Waqas, Saeed Mian Qaisar  
[https://www.sciencedirect.com/science//pii/S0140366422004054/pdfft?md5=68fe2c8d48365e33b1fbe016624d6757&pid=1-s2.0-S0140366422004054-main.pdf](https://www.sciencedirect.com/science/pii/S0140366422004054/pdfft?md5=68fe2c8d48365e33b1fbe016624d6757&pid=1-s2.0-S0140366422004054-main.pdf)  
  
8. Energy optimization for optimal location in 5G networks using improved Barnacles Mating Optimizer  
Physical Communication Available online 20 May 2023 In press, journal pre-proof 102068  
Zahra Mohammadnejad, Hamza Mohammed Ridha Al-Khafaji, Sura Rahim Alatba  
[https://www.sciencedirect.com/science//pii/S187449072300071X/pdfft?md5=edf02b0b783539859df85298adaa9195&pid=1-s2.0-S187449072300071X-main.pdf](https://www.sciencedirect.com/science/pii/S187449072300071X/pdfft?md5=edf02b0b783539859df85298adaa9195&pid=1-s2.0-S187449072300071X-main.pdf)  
  
9. The vulnerability and enhancement of AKA protocol for mobile authentication in LTE/5G networks  
Computer Networks 22 March 2023 Volume 228 (Cover date: June 2023) 109685  
Teng Fei, Wenye Wang  
[https://www.sciencedirect.com/science//pii/S1389128623001305/pdfft?md5=ea0969c5b71d4098cbd103b17f24460b&pid=1-s2.0-S1389128623001305-main.pdf](https://www.sciencedirect.com/science/pii/S1389128623001305/pdfft?md5=ea0969c5b71d4098cbd103b17f24460b&pid=1-s2.0-S1389128623001305-main.pdf)  
  
10. A Comprehensive review on 5G-based Smart Healthcare Network Security: Taxonomy, Issues, Solutions and Future  directions  
Array 8 May 2023 Volume 18 (Cover date: July 2023) 100290  
Abdul Ahad, Zahra AliIvan Miguel Pires  
[https://www.sciencedirect.com/science//pii/S2590005623000152/pdfft?md5=5a210b76311204a5d7faea4d079519c6&pid=1-s2.0-S2590005623000152-main.pdf](https://www.sciencedirect.com/science/pii/S2590005623000152/pdfft?md5=5a210b76311204a5d7faea4d079519c6&pid=1-s2.0-S2590005623000152-main.pdf)  
  
11. Toward end-to-end latency management of 5G network slicing and fronthaul traffic (Invited paper)  
Optical Fiber Technology 24 January 2023 Volume 76 (Cover date: March 2023) 103220  
David Larrabeiti, Luis M. Contreras, Juan P. Fernandez-Palacios  
[https://www.sciencedirect.com/science//pii/S1068520022004059/pdfft?md5=efba810762d4c87f93eb5676781b69f9&pid=1-s2.0-S1068520022004059-main.pdf](https://www.sciencedirect.com/science/pii/S1068520022004059/pdfft?md5=efba810762d4c87f93eb5676781b69f9&pid=1-s2.0-S1068520022004059-main.pdf)  
  
12. Handover and load balancing self-optimization models in 5G mobile networks  
Engineering Science and Technology, an International Journal 29 April 2023 Volume 42 (Cover date: June 2023) 101418  
Wasan Kadhim Saad, Ibraheem Shayea, Ayman A. El-Saleh  
[https://www.sciencedirect.com/science//pii/S2215098623000964/pdfft?md5=d2bf6922e91e36c6702305d95db91934&pid=1-s2.0-S2215098623000964-main.pdf](https://www.sciencedirect.com/science/pii/S2215098623000964/pdfft?md5=d2bf6922e91e36c6702305d95db91934&pid=1-s2.0-S2215098623000964-main.pdf)  
  
13. Sec-edge: Trusted blockchain system for enabling the identification and authentication of edge based 5G networks  
Computer Communications 8 December 2022 Volume 199 (Cover date: 1 February 2023) Pages 10-29  
Erukala Suresh Babu, Amogh Barthwal, Rajesh Kaluri  
[https://www.sciencedirect.com/science//pii/S0140366422004510/pdfft?md5=6beef66e2eb080d2a7018c8f2312cf6a&pid=1-s2.0-S0140366422004510-main.pdf](https://www.sciencedirect.com/science/pii/S0140366422004510/pdfft?md5=6beef66e2eb080d2a7018c8f2312cf6a&pid=1-s2.0-S0140366422004510-main.pdf)  
  
14. A novel deep deterministic policy gradient model applied to intelligent transportation system security problems in 5G and 6G network scenarios  
Physical Communication 9 November 2022 Volume 56 (Cover date: February 2023) 101938  
David Augusto Ribeiro, Dick Carrillo Melgarejo, Demóstenes Zegarra Rodríguez  
[https://www.sciencedirect.com/science//pii/S1874490722002154/pdfft?md5=bf8e2a4a75e2d129724b076d2b5533bc&pid=1-s2.0-S1874490722002154-main.pdf](https://www.sciencedirect.com/science/pii/S1874490722002154/pdfft?md5=bf8e2a4a75e2d129724b076d2b5533bc&pid=1-s2.0-S1874490722002154-main.pdf)  
  
15. Reliable and cost-efficient protection scheme for 5G fronthaul/backhaul network  
Heliyon 2 March 2023 Volume 9, Issue 3 (Cover date: March 2023) e14215  
Syed Saeed Jaffer, Ashiq Hussain, Muhammad Mahmood Ali  
[https://www.sciencedirect.com/science//pii/S2405844023014226/pdfft?md5=29c4c84404522a96bb0e5f532585b105&pid=1-s2.0-S2405844023014226-main.pdf](https://www.sciencedirect.com/science/pii/S2405844023014226/pdfft?md5=29c4c84404522a96bb0e5f532585b105&pid=1-s2.0-S2405844023014226-main.pdf)  
  
16. Modified power line system-based energy efficient routing protocol to improve network life time in 5G networks  
Computers and Electrical Engineering 5 January 2023 Volume 106 (Cover date: March 2023) 108564  
Hamed Alqahtani, L Niranjan, Azath Mubarakali  
[https://www.sciencedirect.com/science//pii/S0045790622007790/pdfft?md5=4d8e7208cfcfb521307226a117f9b036&pid=1-s2.0-S0045790622007790-main.pdf](https://www.sciencedirect.com/science/pii/S0045790622007790/pdfft?md5=4d8e7208cfcfb521307226a117f9b036&pid=1-s2.0-S0045790622007790-main.pdf)  
  
17. An expert algorithm for spectrum sensing and signal detection in NOMA-enabled 5G networks  
Expert Systems with Applications 9 November 2022 Volume 214 (Cover date: 15 March 2023) 119069  
Farid Samsami Khodadad, Shakiba Janalizadeh  
[https://www.sciencedirect.com/science//pii/S0957417422020875/pdfft?md5=c920a49e73ebaf14709a467d797a2c0b&pid=1-s2.0-S0957417422020875-main.pdf](https://www.sciencedirect.com/science/pii/S0957417422020875/pdfft?md5=c920a49e73ebaf14709a467d797a2c0b&pid=1-s2.0-S0957417422020875-main.pdf)  
  
18. Joint opportunistic MIMO-mode selection and channel–user assignment for improved throughput in beyond 5G networks  
Ad Hoc Networks 16 March 2023 Volume 144 (Cover date: 1 May 2023) 103151  
Haythem Bany Salameh, Aseel Alkana’neh, Yaser Jararweh  
[https://www.sciencedirect.com/science//pii/S1570870523000719/pdfft?md5=a9d6626281352c0035c76b654d78c7b5&pid=1-s2.0-S1570870523000719-main.pdf](https://www.sciencedirect.com/science/pii/S1570870523000719/pdfft?md5=a9d6626281352c0035c76b654d78c7b5&pid=1-s2.0-S1570870523000719-main.pdf)  
  
19. A comprehensive systematic review of integration of time sensitive networking and 5G communication  
Journal of Systems Architecture 26 February 2023 Volume 138 (Cover date: May 2023) 102852  
Zenepe Satka, Mohammad Ashjaei, Saad Mubeen  
[https://www.sciencedirect.com/science//pii/S1383762123000310/pdfft?md5=f85ee83aee0c1609e199f064e8291010&pid=1-s2.0-S1383762123000310-main.pdf](https://www.sciencedirect.com/science/pii/S1383762123000310/pdfft?md5=f85ee83aee0c1609e199f064e8291010&pid=1-s2.0-S1383762123000310-main.pdf)  
  
20. Distributed dual-layer autonomous closed loops for self-protection of 5G/6G IoT networks from distributed denial of service attacks  
Computer Networks 21 December 2022 Volume 222 (Cover date: February 2023) 109526  
Pablo Benlloch-Caballero, Qi Wang, Jose M. Alcaraz Calero  
[https://www.sciencedirect.com/science//pii/S1389128622005606/pdfft?md5=5d0586866e3adfeceb4482202adfe629&pid=1-s2.0-S1389128622005606-main.pdf](https://www.sciencedirect.com/science/pii/S1389128622005606/pdfft?md5=5d0586866e3adfeceb4482202adfe629&pid=1-s2.0-S1389128622005606-main.pdf)  
  
21. Circularly-polarized l-shaped monopole antenna with slanting edge DGS for mid-band 4/5G network applications  
Materials Today: Proceedings 10 December 2022 Volume 79, Part 2 (Cover date: 2023)Pages 316-319  
Vikash Kumar Boradak, Tejpal Jhajharia, Vijay Sharma  
[https://www.sciencedirect.com/science//pii/S2214785322072327/pdfft?md5=99bad212da93f44cd38a6e4772a7eb70&pid=1-s2.0-S2214785322072327-main.pdf](https://www.sciencedirect.com/science/pii/S2214785322072327/pdfft?md5=99bad212da93f44cd38a6e4772a7eb70&pid=1-s2.0-S2214785322072327-main.pdf)  
  
22. Deep learning based physical layer security for terrestrial communications in 5G and beyond networks: A survey  
Physical Communication 20 January 2023 Volume 57 (Cover date: April 2023) 102002  
Himanshu Sharma, Neeraj Kumar  
[https://www.sciencedirect.com/science//pii/S1874490723000058/pdfft?md5=15c50a38316cd8f4fae39f8352fa1580&pid=1-s2.0-S1874490723000058-main.pdf](https://www.sciencedirect.com/science/pii/S1874490723000058/pdfft?md5=15c50a38316cd8f4fae39f8352fa1580&pid=1-s2.0-S1874490723000058-main.pdf)  
  
23. Joint QoS and energy-efficient resource allocation and scheduling in 5G Network Slicing  
Computer Communications 11 February 2023 Volume 202 (Cover date: 15 March 2023) Pages 110-123  
Saibharath S.Sudeepta Mishra, Chittaranjan Hota  
[https://www.sciencedirect.com/science//pii/S0140366423000464/pdfft?md5=04c4c80f55b595c1c22bb25c325372b8&pid=1-s2.0-S0140366423000464-main.pdf](https://www.sciencedirect.com/science/pii/S0140366423000464/pdfft?md5=04c4c80f55b595c1c22bb25c325372b8&pid=1-s2.0-S0140366423000464-main.pdf)  
  
24. Yinker: A flexible BBR to achieve the high-throughput and low-latency data transmission over Wi-Fi and 5G networks  
Computer Networks 17 December 2022 Volume 222 (Cover date: February 2023) 109530  
Yi Xie, Xianliang Jiang, Haiming Chen  
[https://www.sciencedirect.com/science//pii/S1389128622005643/pdfft?md5=16e1611a545678e6e4864f1f09a1f132&pid=1-s2.0-S1389128622005643-main.pdf](https://www.sciencedirect.com/science/pii/S1389128622005643/pdfft?md5=16e1611a545678e6e4864f1f09a1f132&pid=1-s2.0-S1389128622005643-main.pdf)  
  
25. A Steiner Tree based efficient network infrastructure design in 5G urban vehicular networks  
Computer Communications 23 January 2023 Volume 201 (Cover date: 1 March 2023) Pages 59-71  
Moyukh Laha, Raja Datta  
[https://www.sciencedirect.com/science//pii/S0140366423000245/pdfft?md5=b9808e8066f44fefb5fae50395a410a8&pid=1-s2.0-S0140366423000245-main.pdf](https://www.sciencedirect.com/science/pii/S0140366423000245/pdfft?md5=b9808e8066f44fefb5fae50395a410a8&pid=1-s2.0-S0140366423000245-main.pdf)  
  
26. Resource Allocation in Multi-access Edge Computing for 5G-and-beyond networks  
Computer Networks 18 March 2023 Volume 227 (Cover date: May 2023) 109720  
Annisa Sarah, Gianfranco Nencioni, Md. Muhidul I. Khan  
[https://www.sciencedirect.com/science//pii/S1389128623001652/pdfft?md5=32c9f99f7b0a67b7c0b79e3b71be1b28&pid=1-s2.0-S1389128623001652-main.pdf](https://www.sciencedirect.com/science/pii/S1389128623001652/pdfft?md5=32c9f99f7b0a67b7c0b79e3b71be1b28&pid=1-s2.0-S1389128623001652-main.pdf)  
  
27. WaterPurifier: A scalable system to prevent the DNS water torture attack in 5G-enabled SIoT network  
Computer Communications 23 December 2022 Volume 199 (Cover date: 1 February 2023) Pages 186-195  
Lihua Yin, Muyijie Zhu, Yangyang Li  
[https://www.sciencedirect.com/science//pii/S0140366422004698/pdfft?md5=153cc75c34cc60260694c0c36739b297&pid=1-s2.0-S0140366422004698-main.pdf](https://www.sciencedirect.com/science/pii/S0140366422004698/pdfft?md5=153cc75c34cc60260694c0c36739b297&pid=1-s2.0-S0140366422004698-main.pdf)  
  
28. Injecting cognitive intelligence into beyond-5G networks: A MAC layer perspective  
Computers and Electrical Engineering 13 April 2023 Volume 108 (Cover date: May 2023) 108717  
Ali Nauman, Muhammad Ali Jamshed, Sung Won Kim  
[https://www.sciencedirect.com/science//pii/S0045790623001416/pdfft?md5=f97892394467f459e138f85bfe3cf78a&pid=1-s2.0-S0045790623001416-main.pdf](https://www.sciencedirect.com/science/pii/S0045790623001416/pdfft?md5=f97892394467f459e138f85bfe3cf78a&pid=1-s2.0-S0045790623001416-main.pdf)  
  
29. Low-loss and dual-band filter inspired by glide symmetry principle over millimeter-wave spectrum for 5G cellular networks  
iScience 27 December 2022 Volume 26, Issue 1 (Cover date: 20 January 2023) 105899  
Mohsen Karamirad, Negin Pouyanfar, Francisco Falcone  
[https://www.sciencedirect.com/science//pii/S2589004222021721/pdfft?md5=6ca32664fd198e2d8441c2ae2079c1f2&pid=1-s2.0-S2589004222021721-main.pdf](https://www.sciencedirect.com/science/pii/S2589004222021721/pdfft?md5=6ca32664fd198e2d8441c2ae2079c1f2&pid=1-s2.0-S2589004222021721-main.pdf)  
  
30. Designing problem-specific operators for solving the Cell Switch-Off problem in ultra-dense 5G networks with hybrid MOEAs  
Swarm and Evolutionary Computation 16 March 2023 Volume 78 (Cover date: April 2023) 101290  
Jesús Galeano-Brajones, Francisco Luna-Valero, Juan F. Valenzuela-Valdés  
[https://www.sciencedirect.com/science//pii/S2210650223000639/pdfft?md5=7ba087419ebde23025eaf15b2cc7c94a&pid=1-s2.0-S2210650223000639-main.pdf](https://www.sciencedirect.com/science/pii/S2210650223000639/pdfft?md5=7ba087419ebde23025eaf15b2cc7c94a&pid=1-s2.0-S2210650223000639-main.pdf)  
  
31. A novel power consumption optimization framework in 5G heterogeneous networks  
Computer Networks 24 November 2022 Volume 220 (Cover date: January 2023) 109487  
Kuna Venkateswararao, Pravati Swain, Andreas Pitsillides  
[https://www.sciencedirect.com/science//pii/S1389128622005217/pdfft?md5=935c349003a89fb47f1c0684d5730973&pid=1-s2.0-S1389128622005217-main.pdf](https://www.sciencedirect.com/science/pii/S1389128622005217/pdfft?md5=935c349003a89fb47f1c0684d5730973&pid=1-s2.0-S1389128622005217-main.pdf)  
  
32. Load balancing in 5G heterogeneous networks based on automatic weight function  
ICT Express Available online 21 March 2023 In press, corrected proof  
Emre Gures, Ibraheem Shayea, Mohammad Alnakhli  
[https://www.sciencedirect.com/science//pii/S2405959523000358/pdfft?md5=18f78fe8d5af5f0c30298ebb3d4e91ed&pid=1-s2.0-S2405959523000358-main.pdf](https://www.sciencedirect.com/science/pii/S2405959523000358/pdfft?md5=18f78fe8d5af5f0c30298ebb3d4e91ed&pid=1-s2.0-S2405959523000358-main.pdf)  
  
33. Intelligent coordinated self-optimizing handover scheme for 4G/5G heterogeneous networks  
ICT Express 13 May 2022 Volume 9, Issue 2 (Cover date: April 2023) Pages 276-281  
Abdulraqeb Alhammadi, Wan Haslina Hassan, Wasan Kadhim Saad  
[https://www.sciencedirect.com/science//pii/S2405959522000698/pdfft?md5=ebbb5927d56d7f5078a585ba7d5b2fc9&pid=1-s2.0-S2405959522000698-main.pdf](https://www.sciencedirect.com/science/pii/S2405959522000698/pdfft?md5=ebbb5927d56d7f5078a585ba7d5b2fc9&pid=1-s2.0-S2405959522000698-main.pdf)  
  
34. Femtocell deployment for scalable video transmission in 5G networks  
Computer Communications 26 October 2022 Volume 197 (Cover date: 1 January 2023) Pages 61-70  
Majid Abiri, Mehri Mehrjoo, Mehdi Rezaei  
[https://www.sciencedirect.com/science//pii/S0140366422003966/pdfft?md5=0e1f6580340417cd7377abfdf0bfcf17&pid=1-s2.0-S0140366422003966-main.pdf](https://www.sciencedirect.com/science/pii/S0140366422003966/pdfft?md5=0e1f6580340417cd7377abfdf0bfcf17&pid=1-s2.0-S0140366422003966-main.pdf)  
  
35. 3-D deep learning detector for 5G networks  
Digital Signal Processing 9 March 2023 Volume 136 (Cover date: May 2023) 103984  
Chung Buiquang  
[https://www.sciencedirect.com/science//pii/S1051200423000799/pdfft?md5=f528a8e7fd0984be54ec414ef8f5b103&pid=1-s2.0-S1051200423000799-main.pdf](https://www.sciencedirect.com/science/pii/S1051200423000799/pdfft?md5=f528a8e7fd0984be54ec414ef8f5b103&pid=1-s2.0-S1051200423000799-main.pdf)  
  
36. Adaptive cell selection algorithm for balancing cell loads in 5G heterogeneous networks  
Alexandria Engineering Journal 25 April 2023 Volume 72 (Cover date: 1 June 2023) Pages 621-634  
Emre Gures, Ibraheem Shayea, Ayman A. El-Saleh  
[https://www.sciencedirect.com/science//pii/S1110016823002855/pdfft?md5=4825b9c0d98cd0d8fe380ccd50f63106&pid=1-s2.0-S1110016823002855-main.pdf](https://www.sciencedirect.com/science/pii/S1110016823002855/pdfft?md5=4825b9c0d98cd0d8fe380ccd50f63106&pid=1-s2.0-S1110016823002855-main.pdf)  
  
37. Anti-jamming channel access in 5G ultra-dense networks: a game-theoretic learning approach  
Digital Communications and Networks 5 May 2022 Volume 9, Issue 2 (Cover date: April 2023) Pages 523-533  
Yunpeng Zhang, Luliang Jia, Meng Wang  
[https://www.sciencedirect.com/science//pii/S2352864822000876/pdfft?md5=bb9ec074f0c281ad7f1f247c0e791603&pid=1-s2.0-S2352864822000876-main.pdf](https://www.sciencedirect.com/science/pii/S2352864822000876/pdfft?md5=bb9ec074f0c281ad7f1f247c0e791603&pid=1-s2.0-S2352864822000876-main.pdf)  
  
38. Towards optimization of 5G NR transport over fiber links performance in 5G Multi-band Networks: An OMSA model approach  
Optical Fiber Technology Available online 13 May 2023 In press, corrected proof 103358  
Muhammad Usman Hadi  
[https://www.sciencedirect.com/science//pii/S1068520023001384/pdfft?md5=2287a4ff5c85ec8f633a752e671f7af8&pid=1-s2.0-S1068520023001384-main.pdf](https://www.sciencedirect.com/science/pii/S1068520023001384/pdfft?md5=2287a4ff5c85ec8f633a752e671f7af8&pid=1-s2.0-S1068520023001384-main.pdf)  
  
39. Stackelberg game-based dynamic resource trading for network slicing in 5G networks  
Journal of Network and Computer Applications24 February 2023Volume 214 (Cover date: May 2023) 103600  
Ruijie OuGordon Owusu BoatengGuisong Liu  
[https://www.sciencedirect.com/science//pii/S108480452300019X/pdfft?md5=3d6ba8b1b80e035962224ecfe8713f97&pid=1-s2.0-S108480452300019X-main.pdf](https://www.sciencedirect.com/science/pii/S108480452300019X/pdfft?md5=3d6ba8b1b80e035962224ecfe8713f97&pid=1-s2.0-S108480452300019X-main.pdf)  
  
40. I-MEREC-T: Improved MEREC-TOPSIS scheme for optimal network selection in 5G heterogeneous network for IoT  
Internet of Things 11 March 2023 Volume 22 (Cover date: July 2023) 100748  
Ashok Kumar Yadav, Karan Singh, Purnendu Shekhar Pandey  
[https://www.sciencedirect.com/science//pii/S2542660523000719/pdfft?md5=35e3eca4d2f70c5cd8dbe0ce9fb8dfcc&pid=1-s2.0-S2542660523000719-main.pdf](https://www.sciencedirect.com/science/pii/S2542660523000719/pdfft?md5=35e3eca4d2f70c5cd8dbe0ce9fb8dfcc&pid=1-s2.0-S2542660523000719-main.pdf)  
  
41. GENETIC ALGORITHM FOR HIGHER ENSURED LIFESPAN OF INTERNET OF THINGS IN 5G NETWORK  
Computers and Electrical Engineering 3 January 2023 Volume 106 (Cover date: March 2023) 108563  
B Ravi Chandra, Krishan Kumar, Abdulelah G. F. Saif  
[https://www.sciencedirect.com/science//pii/S0045790622007789/pdfft?md5=c3657570281f5f56d5a3fe84c4565c86&pid=1-s2.0-S0045790622007789-main.pdf](https://www.sciencedirect.com/science/pii/S0045790622007789/pdfft?md5=c3657570281f5f56d5a3fe84c4565c86&pid=1-s2.0-S0045790622007789-main.pdf)  
  
42. A novel beamforming technique using mmWave antenna arrays for 5G wireless communication networks  
Digital Signal Processing 13 January 2023 Volume 134 (Cover date: 15 April 2023) 103917  
Bakhtiar Ali Karim, Haitham Kareem Ali  
[https://www.sciencedirect.com/science//pii/S105120042300012X/pdfft?md5=244f2583749b47659f062154ad3da8ca&pid=1-s2.0-S105120042300012X-main.pdf](https://www.sciencedirect.com/science/pii/S105120042300012X/pdfft?md5=244f2583749b47659f062154ad3da8ca&pid=1-s2.0-S105120042300012X-main.pdf)  
  
43. Joint resource and power allocation for 5G enabled D2D networking with NOMA  
Computer Networks 23 December 2022 Volume 222 (Cover date: February 2023) 109536  
Rakesh Kumar Jha, Mittal K. Pedhadiya Puja  
[https://www.sciencedirect.com/science//pii/S1389128622005709/pdfft?md5=a1be43ff11f618e4e1be8cd9c5906a6f&pid=1-s2.0-S1389128622005709-main.pdf](https://www.sciencedirect.com/science/pii/S1389128622005709/pdfft?md5=a1be43ff11f618e4e1be8cd9c5906a6f&pid=1-s2.0-S1389128622005709-main.pdf)  
  
44. Non-cooperative game algorithms for computation offloading in mobile edge computing environments  
Journal of Parallel and Distributed Computing 17 October 2022 Volume 172 (Cover date: February 2023) Pages 18-31  
Jianguo Chen, Qingying Deng, Xulei Yang  
[https://www.sciencedirect.com/science//pii/S074373152200212X/pdfft?md5=2372a367d56b81f4a12458e0158c4be6&pid=1-s2.0-S074373152200212X-main.pdf](https://www.sciencedirect.com/science/pii/S074373152200212X/pdfft?md5=2372a367d56b81f4a12458e0158c4be6&pid=1-s2.0-S074373152200212X-main.pdf)  
  
45. 5G in Logistics 4.0: potential applications and challenges  
Procedia Computer Science 13 January 2023 Volume 217 (Cover date: 2023) Pages 650-659  
Alexandra Lagorio, Chiara Cimini, Sergio Cavalieri  
[https://www.sciencedirect.com/science//pii/S1877050922023390/pdfft?md5=dc5988c755eb4ec5eded3f7a9166fb05&pid=1-s2.0-S1877050922023390-main.pdf](https://www.sciencedirect.com/science/pii/S1877050922023390/pdfft?md5=dc5988c755eb4ec5eded3f7a9166fb05&pid=1-s2.0-S1877050922023390-main.pdf)

     Nguồn: Cục Thông tin khoa học và công nghệ quốc gia