

Publications:

International Journals:

1. Jahnvi Tiwari, **Arun Prakash** and Rajeev Tripathi "A Metaheuristic MAC Protocol for Safety Applications in Cognitive Vehicular Networks," *Vehicular Communications*, Elsevier, Dec. 2023, Dol: <https://doi.org/10.1016/j.vehcom.2023.100686>.
2. Amandeep Kaur, Krishan Kumar, **Arun Prakash** and Rajeev Tripathi "Imperfect CSI based Resource Management in Cognitive IoT Networks: A Deep Recurrent Reinforcement Learning Framework," *IEEE Transactions on Cognitive Communications and Networking*, 2023, Dol: 10.1109/TCCN.2023.3271144.
3. A. Kaur, J. Thakur, M. Thakur, K. Kumar, **A. Prakash** and R. Tripathi "Deep Recurrent Reinforcement Learning based Distributed Dynamic Spectrum Access in Multichannel Wireless Networks with Imperfect Feedback," *IEEE Transactions on Cognitive Communications and Networking*, Vol. 9, Issue 2, April 2023, Dol: 10.1109/TCCN.2023.3234276.
4. Jahnvi Tiwari, **Arun Prakash**, Rajeev Tripathi, and Kshirasagar Naik "An Adaptive and Cooperative MAC Protocol for Safety Applications in Cognitive Radio Enabled Vehicular Ad-hoc Networks," *Ad Hoc Networks*, Elsevier, October 2022, Dol: <https://doi.org/10.1016/j.adhoc.2022.103019>.
5. Ankita Srivastava, **Arun Prakash**, and Rajeev Tripathi, "QoS Aware Stochastic Relaxation Approach in Multichannel CR-VANET: A Junction-Centric Geographic Routing Protocol," *Journal of Ambient Intelligence and Humanized Computing*, Springer, September 2022, DOI: <https://doi.org/10.1007/s12652-022-04391-x>.
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10. Yogesh Tripathi, **Arun Prakash**, and Rajeev Tripathi, "A Novel Slot Scheduling Technique for Duty Cycle based Data Transmission for Wireless Sensor Network," *Digital Communication and Networks*, Elsevier, Feb. 2022, Dol: <https://doi.org/10.1016/j.dcan.2022.01.006>.
11. Yogesh Tripathi, **Arun Prakash**, and Rajeev Tripathi, "Load aware multipath data forwarding for enhanced lifetime of WSN", *International Journal of Information Technology*, Springer, Vol. 13, Jan. 2022, pp. 807-815 Dol: <https://doi.org/10.1007/s41870-020-00557-y>.

12. Devesh Shukla, **Arun Prakash**, and Rajeev Tripathi, "Adaptive Modulation and Coding for Performance Enhancement of Vehicular Communication," *Wireless Personal Communications, Springer*, Sep. 2021, DOI: <https://doi.org/10.1007/s11277-021-09125-4>.
13. Devesh Shukla, **Arun Prakash**, and Rajeev Tripathi, "Curve Fitting Optimization based Improved Channel Estimation for VANET," *International Journal of Electronics, Taylor and Francis*, Dec. 2021, DOI: <https://doi.org/10.1080/00207217.2021.2001874>.
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17. Ankita Srivastava, **Arun Prakash**, and Rajeev Tripathi, "Fuzzy-based Beaconless Probabilistic Broadcasting for Information Dissemination in Urban VANET," *Ad Hoc Networks, Elsevier*, Vol. 108, Nov. 2020, DOI: <https://doi.org/10.1016/j.adhoc.2020.102285>.
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19. Raghavendra Pal, Arun Prakash, Rajeev Tripathi, and Kshirasagar Naik "Regional Super Cluster based Optimum Channel Selection for CR-VANET," *IEEE Transactions on Cognitive Communications and Networking*, Vol. 6, No. 2, June 2020, pp. 607-617, DOI: <https://doi.org/10.1109/TCCN.2019.2960683>.
20. Ankita Srivastava, **Arun Prakash**, and Rajeev Tripathi, "An Adaptive Intersection Selection Mechanism using Ant Colony Optimization for Efficient Data Dissemination in Urban VANET," *Peer-to-Peer Networking and Applications, Springer*, 2020, DOI: <https://doi.org/10.1007/s12083-020-00892-8>. (Available Online)
21. Ankita Srivastava, **Arun Prakash**, and Rajeev Tripathi, "Location based Routing Protocols in VANET: Issues and Existing Solutions," *Vehicular Communications, Elsevier*, Vol. 23, 2020, pp. 14–22, DOI: <https://doi.org/10.1016/j.vehcom.2020.100231>.
22. Raghavendra Pal, **Arun Prakash**, Rajeev Tripathi, and Kshirasagar Naik "A Scheduling Algorithm based on Preemptive Priority and Hybrid Data Structure for CR-VANET," *IET Communications*, Vol. 13, Issue 20, 2019, pp.3443-3451, DOI: [10.1049/iet-com.2019.0574](https://doi.org/10.1049/iet-com.2019.0574)
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- using Multilayer Transmitter Enabled Novel Energy Model," *IEEE Systems Journal*, Volume: 13, Issue: 2, 2019, pp. 1285-1296, DOI: 10.1109/JSYST.2018.2852487.
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 29. Zain Hashim, Nishu Gupta, **Arun Prakash**, and Rajeev Tripathi, "Dual-Band UWB Bandpass Filter with Triangular DB-DGS for WLAN Applications in DSRC Band," *AEU - International Journal of Electronics and Communications*, Elsevier, Volume 86, 2018, pp. 77-85, DOI: <https://doi.org/10.1016/j.aeue.2018.01.026>.
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37. Nishu Gupta, Arun Prakash, and Rajeev Tripathi, "Mobility dependent clustering-based data transmission under variable data rate for different node densities in vehicular ad hoc network," *Int. J. of Advanced Intelligence Paradigms, Inderscience*, Volume 9, No. 2-3, 2017, pp. 246-262, DOI: 10.1504/IJAIP.2017.082986.
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41. Nishu Gupta, **Arun Prakash**, and Rajeev Tripathi, "Clustering based Enhanced Safety message Dissemination Medium Access Control Protocol for Vehicular Ad Hoc Network," *Int. J. of Ad Hoc and Ubiquitous Computing, Inderscience*, Volume 24, No. 1/2, 2017, pp. 76-89, DOI: 10.1504/IJAHUC.2017.10001715.
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48. Pawan Kumar Verma, Rajesh Verma, **Arun Prakash**, Ashish Agrawal, Kshirasagar Naik, Rajeev Tripathi, Maazen Alsabaan, Tarek Khalifa, Tamer Abdelkader, and Abdulhakim Aboghara, "Machine-to-Machine (M2M) Communications: A Survey," *Journal of Network and Computer Applications, Elsevier*, Vol. 66, 2016, pp. 83–105, DOI:10.1016/j.jnca.2016.02.016.
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61. Rajesh Verma, **Arun Prakash**, Rajeev Tripathi, and Neeraj Tyagi, "Improving Throughput of Starved TCP Flow by Sidestepping Bottleneck Nodes Using Concurrent Transmission," *International Journal of Mobile Computing and Multimedia Communications*, IGI Global, Vol. 2, Issue 1, 2010, pp.68--83, DOI: 10.4018/jmcmc.2010103004.

Text or Reference Books / Books Edited / Book chapters published

1. Contributed a book chapter titled "Computational Intelligence in MAC Layer Protocols of mmWave (5G and Beyond) V2X Communication" in "Applications of Computational Intelligence Techniques in Communications," Published by 'CRC Press' (2023), DOI: <https://doi.org/10.1201/9781003452645>.
2. Co-authored and edited a book titled "Internet of Vehicles and its Applications in Autonomous Driving", Published by 'Springer' (September 2020), ISBN: 978-3-030-46335-9, DOI: 10.1007/978-3-030-46335-9.
3. Contributed a book chapter titled "Medium access control in connected vehicles: Advances and Limitations" in "Internet of Vehicles and its Applications in Autonomous Driving," Published by 'Springer' (September 2020), pp. 133-157, ISBN: 978-3-030-46334-2, DOI: https://doi.org/10.1007/978-3-030-46335-9_5.
4. Contributed a book chapter titled "Massive Access Control in Machine-to-Machine Communications" in "Algorithms, Methods, and Applications in Mobile Computing and Communications," Published by 'IGI Global' (2018), pp. 133-157, DOI: 10.4018/978-1-5225-5693-0.ch006.
5. Contributed a book chapter titled "Improving Throughput of Starved TCP Flow by Sidestepping Bottleneck Nodes Using Concurrent Transmission" in "Advancing the Next-Generation of Mobile Computing: Emerging Technologies," Published by 'IGI Global' (2012), pp. 47-60, DOI: 10.4018/978-1-4666-0119-2.ch004.
6. Contributed a book chapter titled "Extended Mobile IPv6 Route Optimization for Mobile Networks in Local and Global Mobility Domain" in "Advancing the Next-Generation of Mobile Computing: Emerging Technologies," Published by 'IGI Global' (2012), pp.183-197, DOI: 10.4018/978-1-4666-0119-2.ch012.
7. Co-authored a book titled 'Digital Principles – Switching Theory', Published By – 'New Age International Publisher' (2006), Second Edition, ISBN (10): 81-224-2306-X, ISBN (13): 978-81-224-2306-8.

International Conferences

1. Aakash Jasper, **Arun Prakash**, Sara Paiva and Raghavendra Pal, "Performance analysis of a novel MAC protocol in mmWave V2X network for the safety application in Outdoor Parking Lot", MAC 2023, MNIIT Allahabad, DOI:10.1109/MAC58191.2023.10177121 (*IEEE Xplore*).
2. Jahnvi Tiwari, Dheeraj Dubey, **Arun Prakash** and Rajeev Tripathi, "A Trustworthy and Cooperative MAC Protocol for Cognitive Vehicular Networks", 2022 IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), IIIT Allahabad, DOI: 10.1109/UPCON56432.2022.9986422 (*IEEE Xplore*).
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4. Ankita Srivastava, **Arun Prakash** and Rajeev Tripathi, "Improved Store-Carry-Forward Scheme for Information Dissemination in Unfavorable Vehicular Distribution", 2021, Advances in VLSI, Communication, and Signal Processing, vol 683. DOI: https://doi.org/10.1007/978-981-15-6840-4_54 (*LNEE Springer*)
5. Anushree Srivastava, **Arun Prakash** and Rajeev Tripathi, "A Survey on Proactive and Reactive Channel Switching Techniques in Cognitive Radios", 2021, Advances in VLSI, Communication, and Signal Processing, Lecture Notes in Electrical Engineering, vol 683. Springer, DOI: https://doi.org/10.1007/978-981-15-6840-4_59 (*LNEE Springer*)
6. Devesh Shukla, **Arun Prakash** and Rajeev Tripathi, "Comparative Analysis of Channel Estimation Techniques in Vehicular Communication", 2021, Advances in VLSI, Communication, and Signal Processing, Lecture Notes in Electrical Engineering, vol 683. Springer, DOI: https://doi.org/10.1007/978-981-15-6840-4_56 (*LNEE Springer*)
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9. Yogesh Tripathi, **Arun Prakash** and Rajeev Tripathi, "An Energy Balanced Load Aware Relay Selection in Cooperative Routing for Wireless Sensor Network", 9th Annual Information Technology, Electromechanical Engineering and Microelectronics Conference (IEMECON), Jaipur, India, 2019, pp. 223-231, doi: 10.1109/IEMECONX.2019.8876962 (*IEEE Xplore*).
10. Akhil Chandran T., Raghavendra Pal, **Arun Prakash** and Rajeev Tripathi, "Proactive Spectrum Handoff based MAC protocol for Cognitive radio ad hoc networks", International conference on VLSI, Communications and signal processing (VCAS 2018), MNNIT Allahabad, 29 Nov.-01 Dec. 2018, pp. 91-101, DOI: https://doi.org/10.1007/978-981-32-9775-3_9 (*LNEE, Springer*).
11. Abhishek Agarwal, Raghavendra Pal and **Arun Prakash**, "A Scheduling Algorithm including deadline of messages in Vehicular Ad hoc Network", International conference on VLSI, Communications and

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12. Devesh Shukla, Vinay Kumar and **Arun Prakash**, "Performance Evaluation of IEEE 802.11p Physical Layer for Efficient Vehicular Communication", International conference on VLSI, Communications and signal processing (VCAS 2018), MNNIT Allahabad, 29 Nov.-01 Dec. 2018, pp. 51-60, DOI: https://doi.org/10.1007/978-981-32-9775-3_5 (LNEE, Springer).
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