List of Publications

International Journals:

- 1. Devesh Shukla, **Arun Prakash** and Rajeev Tripathi, "Channel Estimation Enhancement in Vehicular Communication using Deep Neural Network," *Sādhanā, Springer*, (accepted for publication) (I.F. 1.4)
- A. Srivastava, R. Pal, A. Prakash, R. Tripathi, N. Gupta and A. Alkhayyat, "Energy-Efficient Channel Selection Algorithm with Reduced Collision Probability in Cognitive Radio Networks," *Internet Technology Letters, Wiley, (Special Issue on Survivability Techniques for 6G Wireless Networks)* (accepted for publication) (I.F. – 0.9)
- A. Srivastava, R. Pal, A. Prakash, R. Tripathi, N. Gupta and A. Alkhayyat, "Optimal Channel Selection and Switching Using Q-Learning in Cognitive Radio Ad Hoc Networks," *IEEE Transactions* on Consumer Electronics", (Special Section on "Performance Evaluation Techniques for Next-Generation Wireless Networks"), June 2024, Dol: 10.1109/TCE.2024.3413333. (I.F. – 4.3)
- J. Tiwari, A. Prakash and R. Tripathi "A Metaheuristic MAC Protocol for Safety Applications in Cognitive Vehicular Networks," *Vehicular Communications*, Elsevier, Vol. 44, Dec. 2023, Dol: https://doi.org/10.1016/j.vehcom.2023.100686. (I.F. – 5.8)
- A. Kaur, K. Kumar, A. Prakash and R. Tripathi "Imperfect CSI based Resource Management in Cognitive IoT Networks: A Deep Recurrent Reinforcement Learning Framework," *IEEE Transactions* on Cognitive Communications and Networking, vol. 9, no. 5, pp. 1271-1281, Oct. 2023, Dol: 10.1109/TCCN.2023.3271144. (I.F. – 7.4)
- 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. (I.F. – 7.4)
- 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. (I.F. – 4.8)
- 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. (I.F. – 3.6)
- Jahnvi Tiwari, Arun Prakash, Rajeev Tripathi, and Kshirasagar Naik "A Fair and Cooperative MAC Protocol for Heterogeneous Cognitive Radio Enabled Vehicular Ad-hoc Networks," *IEEE Transactions on Cognitive Communications and Networking*, Vol. 8, Issue 2, June 2022, Dol: 10.1109/TCCN.2022.3168673. (I.F. – 7.4)
- Jahnvi Tiwari, Madhuri Purna, Arun Prakash and Rajeev Tripathi, "A Hybrid Spatially-Distributed Multichannel MAC for VANET," *International Journal of Electronics, Taylor and Francis*, May 2022, Dol: https://doi.org/10.1080/00207217.2022.2068197. (I.F. – 1.3)
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Networks and Distributed Systems, Inderscience, Vol. 8, Nos. 1/2, 2012, pp. 4-23, DOI: 10.1504/IJCNDS.2012.044320. (I.F. – 1.3)

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- 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. (I.F. – 0.6)

Books Edited / Book chapters published

- Contributed a book chapter titled "Computational Intelligence in MAC Layer Protocols of mmWave (5G and Beyond) V2X Communication," Published by 'CRC Press - Taylor & Francis' (Nov. 2023), pp. 67-79, eBook ISBN: 9781003452645, DOI: https://doi.org/10.1201/9781003452645.
- 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.
- 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.
- 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.
- 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.
- 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.

International Conferences

- Tanupriya, Arun Prakash and Sourajit Jashi, "Scrambler Optimization with Reduced Cycles and Speed Enhancement Technique", 12th International Conference on the Internet of Everything, Microwave, Embedded, Communication, and Networks, October 24-26, 2024, Jaipur (Accepted for presentation)
- Richa Singh and Arun Prakash, "Analysis and Comparison of Static and Dynamic Power Dissipation for Various Arbitration Schemes Used in NoC Routers", 12th International Conference on the Internet of Everything, Microwave, Embedded, Communication, and Networks, October 24-26, 2024, Jaipur (Accepted for presentation)
- 3. Sweta Singh, **Arun Prakash**, Rudra Caculo and Rajeev Tripathi, "Design of Dual Band WiFi PCB Antenna", IEEE MAC 2024, October 04-06, 2024, Dehradun (*Accepted for presentation*).
- 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", IEEE MAC 2023, March 24-26, 2023, MNIIT Allahabad (IEEE Xplore).
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- Aakash Jasper, Arun Prakash, Sara Paiva and Raghavendra Pal, "Performance Analysis of mmWave V2V Communication Using Relay Vehicle for Advanced Safety Applications", VCAS 2022, MNIIT Allahabad, (LNEE Springer).
- 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)
- 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)
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- 10.Jahnvi Tiwari, Arun Prakash and Rajeev Tripathi, "A Multichannel Link-Layer Cooperation Protocol (MLCP) for Cognitive Radio Ad Hoc Network", 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_15 (LNEE Springer)
- 11.Ankita Srivastava, Arun Prakash and Rajeev Tripathi, "Quality-of-Service based Reliable Route Discovery using Ant Colony Optimization for VANET", 2019 IEEE Conference on Information and Communication Technology (CICT 2019) IIIT Allahabad, 06-08 Dec. 2019, pp. 1-6, DOI: 10.1109/CICT48419.2019.9066182 (IEEE Xplore).

- 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).
- 13.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*).
- 14.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 signal processing (VCAS 2018), MNNIT Allahabad, 29 Nov.-01 Dec. 2018, pp. 115-123, DOI: https://doi.org/10.1007/978-981-32-9775-3_11 (LNEE, Springer).
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