

Faculty wise areas of specialization (For Academic Session 2022-23)

Name of the Faculty Member	Specialization
Prof. Rajeev Tripathi	Wireless & Data Communication, Free Space Optical & Mobile Communications
Prof. Haranath Kar	Digital Signal Processing, Multidimensional Systems, Nonlinear Systems, Delayed Systems
Prof. V. K. Srivastava	Signal and Image Processing, Communication Systems
Prof. V. Bhaduria	VLSI Design, Analog Circuit Design
Prof. R.K. Nagaria	Mixed-Mode Signal Processing, VLSI Circuits & Systems
Prof. Amit Dhawan	Multidimensional Systems, Digital Signal Processing
Prof. R.A. Mishra	VLSI Circuits, Modelling of Semiconductor Devices, RNS based Circuits Design
Prof. V.S. Tripathi	Antenna & Communication Engineering

Dr. V. Krishna Rao Kandanvli	Digital Signal Processing, Multidimensional Systems, Nonlinear Systems, Delayed Systems, Robust Stability
Dr. Arvind Kumar	Microcontroller & Embedded System, Digital Design, Ad-hoc Networks
Dr. Basant Kumar	Image Compression, Data Hiding, Wireless Communication
Dr. Sanjeev Rai	Microelectronics & VLSI Design, Modeling Semiconductor Devices, VLSI Circuits & Systems
Dr. Manish Tiwari	Signal Processing, Multidimensional Systems & Stability, Embedded Systems
Dr. Arun Prakash	Wireless & Mobile Communication, Analog & Digital Communication, Ad-hoc Networks & Mobility Management
Dr. Yogendra Kumar Prajapati	Optical Communication & DSP for Optical Communication, Optical Fiber Sensors, Metamaterial Waveguides & Microstructure Fibers.
Dr. Santosh Kumar Gupta	VLSI Design Simulation and Modelling of Semiconductor Nanoelectronics Devices
Mr. Asim Mukherjee	Optical Communication, Random Signals & Stochastic Processes, Queuing Systems
Dr. Rajeev Gupta	Microwave Engineering
Dr. Shweta Tripathi	Fabrication, Modeling & Simulation of Optical & Semiconductor Devices

Dr. P. Karuppanan	Analog & Digital VLSI Design, Embedded System, Industrial Electronics, Renewable Energy System
Dr. Vinay Kumar	Wireless Communications, Non-Conventional WSNs (Under Water & Under Ground Sensor Networks), Magnetic Induction (MI) based Communications
Dr. Smriti Agarwal	(GPR), Non-invasive Quality Monitoring, EM based Material Characterization Antenna
Dr. Anand Sharma	Dielectric Resonator Antenna, Antenna Design for MIMO Applications and Printed Antennas
Dr. Sumit Kumar Jha	Adaptive Optimal Controllers, Filter-based Design for unknown linear systems, Adaptive Dynamic, Signal Processing
Dr. Satish Chandra	Computational electronic material and devices, Analog Circuit Design
Dr. Vimal Kumar Singh Yadav	Printed Electronics, Nanowire Sensor fabrication, Nanowire based photodiodes, Magnetic materials based devices and sensors, Printed micro-resistors and Schottky Diodes
Dr. Deepak Punetha	Microelectronics/VLSI Device Modeling and Simulation, Development of Gas Sensors, Photovoltaic Devices, Photo-detectors and Nanogenerators

List of Research Publications: [During July 2020 to October 2023]

Name of Faculty	
Prof. Rajeev Tripathi	<ol style="list-style-type: none"> 1. Devarshi Shukla, Santosh Kumar Gupta, Vijaya Bhadauria, and Rajeev Tripathi, “An Inverter Amplifier with Resistive Feedback Current Mirror Gilbert Mixer”, International Journal of Electronics, Publisher - Taylor & Francis, Vol. 110, issue 2, pp. 221-244, February 2023. 2. Devarshi Shukla, Santosh Kumar Gupta, Vijaya Bhadauria, and Rajeev Tripathi, “An ultra-wide band IIP3 of 38.2 dBm and conversion gain of 17.95 dB down conversion Gilbert mixer for 5G internet of

	<p>things applications”, <i>Wireless Networks</i>, Publisher - Springer US, Vol. 20, issue 4, pp. 1657-1669, March 2023.</p> <ol style="list-style-type: none"> 3. 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,” <i>Ad Hoc Networks, Elsevier</i>, October 2022, DoI: https://doi.org/10.1016/j.adhoc.2022.103019 4. Ankita Srivastava, Arun Prakash, and Rajeev Tripathi, “QoS Aware Stochastic Relaxation Approach in Multichannel CR-VANET: A Junction-Centric Geographic Routing Protocol,” <i>Journal of Ambient Intelligence and Humanized Computing</i>, Springer, September 2022, DOI: https://doi.org/10.1007/s12652-022-04391-x 5. Jahnvi Tiwari, Arun Prakash, Rajeev Tripathi, and Kshirasagar Naik “A Fair and Cooperative MAC Protocol for Heterogeneous Cognitive Radio Enabled Vehicular Ad-hoc Networks,” <i>IEEE Transactions on Cognitive Communications and Networking</i>, Vol. 8, Issue 2, June 2022, DoI: https://doi.org/10.1109/TCCN.2022.3168673 6. Jahnvi Tiwari, Madhuri Purna, Arun Prakash and Rajeev Tripathi, “A Hybrid Spatially-Distributed Multichannel MAC for VANET,” <i>International Journal of Electronics</i>, Taylor and Francis, May 2022, DoI: https://doi.org/10.1080/00207217.2022.2068197 7. Ankita Srivastava, Arun Prakash, and Rajeev Tripathi, “A Cross-Layer based Cooperative Broadcast Protocol for Multichannel VANET,” <i>Ad Hoc Networks, Elsevier</i>, Vol. 131, June 2022, DOI: https://doi.org/10.1016/j.adhoc.2022.102840 8. Devarshi Shukla, Santosh Kumar Gupta, Vijaya Bhadauria, and Rajeev Tripathi, “High Gain, Low Noise, Low Voltage, and Low Power Current Mode Up-Conversion Mixer for 5G Application”, <i>IETE Journal of Research</i>, Publisher - Taylor & Francis, pp. 1-13, August 2022. 9. Yogesh Tripathi, Arun Prakash, Rajeev Tripathi, “Energy Efficient and Load aware multipath data forwarding technique for wireless sensor network”, <i>International Journal of Information Technology, Springer</i>, 2021.DoI: https://doi.org/10.1007/s41870-020-00557-y. 10. Yogesh Tripathi, Arun Prakash and Rajeev Tripathi, “A Sleep Scheduling based Cooperative data Transmission for Wireless Sensor Network,” <i>International Journal of Electronics, Taylor and Francis</i>, 2021, DOI: https://doi.org/10.1080/00207217.2021.1914193 (Available online). 11. Jahnvi Tiwari, Arun Prakash, and Rajeev Tripathi, “A Novel Cooperative MAC Protocol for Safety Applications in Cognitive Radio Enabled Vehicular Ad hoc Networks,” <i>Vehicular Communications, Elsevier</i>, Vol. 29, June 2021, DOI: https://doi.org/10.1016/j.vehcom.2021.100336. 12. Shikha Devi, Divya Sharma, and Y. K. Prajapati, and R. Tripathi, “Independent and mixed
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	<p>transmission of 166.5Gb/s PM-8QAM and 222Gb/s PM-16QAM Nyquist-WDM superchannel for long haul metro network,” <i>International Journal of Communication Systems</i>, 2021, DoI: https://doi.org/10.1002/dac.4735.</p> <p>13. Ankita Srivastava, Arun Prakash, and Rajeev Tripathi, “Fuzzy-based Beaconless Probabilistic Broadcasting for Information Dissemination in Urban VANET,” <i>Ad Hoc Networks, Elsevier</i>, Vol. 108, 2020, DoI: https://doi.org/10.1016/j.adhoc.2020.102285.</p> <p>14. Raghavendra Pal, Nishu Gupta, ArunPrakash,RajeevTripathi and Joel J. Rodrigues “Deep Reinforcement Learning based Optimal Channel Selection for Cognitive Radio VANET,” <i>IET Communications</i>, DOI: 10.1049/iet-com.2020.0451.</p> <p>15. Yogesh Tripathi, Arun Prakash, and Rajeev Tripathi, “An Optimum Transmission Distance and Adaptive Clustering based Routing Protocol for Cognitive Radio Sensor Network,” <i>Wireless Personal Communications, Springer</i>, Volume 98, August 2020, pp. 1155-1170, DOI: https://doi.org/10.1007/s11277-020-07745-w.</p> <p>16. PritamKeshariSahoo, Y.K. Prajapati, and Rajeev Tripathi, “Investigation of a Hybrid Mapping based Optical- OFDM using Nonlinear Companding Technique for Indoor VLC Channel,” <i>IET Communications</i>, Vol. 14, 2020, DoI: https://doi.org/10.1049/iet-com.2020.0041.</p> <p>17. Dheeraj Dubey, Yogendra Kumar Prajapati, and Rajeev Tripathi, “Performance Enhancement of Hybrid-SIM for Optical Wireless Downlink Communication with Aperture Averaging and Receiver Diversity,” <i>IET Communications</i>, DoI: https://doi.org/10.1049/iet-com.2020.0261.</p> <p>18. Ankita Srivastava, Arun Prakash, and Rajeev Tripathi, “An Adaptive Intersection Selection Mechanism using Ant Colony Optimization for Efficient Data Dissemination in Urban VANET,” <i>Peer-to-Peer Networking and Applications, Springer</i>, 2020, DOI:https://doi.org/10.1007/s12083-020-00892-8.</p> <p>19. Ankita Srivastava, Arun Prakash, and Rajeev Tripathi, “LocationbasedRoutingProtocolsinVANET: Issues and Existing Solutions,” <i>Vehicular Communications, Elsevier</i>, Vol. 23, 2020, pp. 14–22, DOI: https://doi.org/10.1016/j.vehcom.2020.100231.</p> <p>20. Anurag Upadhyay, Shivam Singh, Y.K. Prajapati, and R.Tripathi, “Numerical Analysis of Large Negative Dispersion and highly Birefringent Photonic Crystal Fiber,” <i>Optik</i>, Vol. 218, 164997, 2020, DOI:https://doi.org/10.1016/j.ijleo.2020.164997.</p> <p>21. Dheeraj Dubey, Yogendra Kumar Prajapati, Rajeev Tripathi, “Error Performance Analysis of PPM- and FSK- Based Hybrid Modulation Scheme for FSO Satellite Downlink,” <i>Optical and Quantum Electronics</i>, 52:286, June 2020, DOI: https://doi.org/10.1007/s11082-020-02404-7.</p> <p>22. Divya Sharma, ShrishBajpai, Y. K. PrajapatiR. Tripathi, “112 Gb/s Coherent NG-PON2 Downstream</p>
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	<p>Transmission using Advance Polarization Multiplexed Modulation Formats,” <i>Optoelectronics and Advanced Materials-Rapid Communications</i>, Vol. 14, No. 5-6, pp. 224 – 232, May-June 2020.</p> <p>23. Divya Sharma, Y.K. Prajapati, Rajeev Tripathi, “0.55 Tb/s heterogeneous Nyquist-WDM superchannel using different polarization multiplexed subcarriers,” <i>Photonic Network Communications</i>, vol. 39, pp. 120-128, April 2020, DoI: https://doi.org/10.1007/s11107-019-00872-w.</p> <p>International Conferences:</p> <ol style="list-style-type: none"> 1. 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). 2. Dubey, D., Tiwari, J., Yadav, A.K., Prajapati, Y.K. and Tripathi, R., 2022, October. BER Efficiency of Outdoor Optics Links Using Hybrid-SIM with Pointing Errors Operating on Extreme Turbulence Regime. In International Conference on VLSI, Communication and Signal processing (pp. 13-22).
Prof. Haranath Kar	<p>[1] V. K. Rao Kandavli and H. Kar, “Global asymptotic stability of 2-D digital filters with a saturation operator on the state-space”, <i>IEEE Trans. on Circuits and Systems II: Express Briefs</i>, vol. 67, no. 11, pp. 2742-2746, Nov. 2020. DOI: 10.1109/TCSII.2020.2980238. [SCI journal, Impact factor = 2.814]</p> <p>[2] K. Singh, V. K. Rao Kandavli, and H. Kar, “Delay partitioning approach to the robust stability of discrete-time systems with finite wordlength nonlinearities and time-varying delays”, <i>Transactions of the Institute of Measurement and Control</i>. vol. 43, issue: 4, pp. 958-974, Feb. 2021 [SCI journal, Impact factor = 1.649].</p> <p>[3] J. Rout and H. Kar, “New ISS Result for Lipschitz Nonlinear Interfered Digital Filters Under Various Concatenations of Quantization and Overflow”, <i>Circuits, Systems, and Signal Processing</i>, vol. 40, pp. 1852–1867, April 2021. DOI:10.1007/s00034-020-01561-0 [SCI journal, Impact factor= 2.225].</p> <p>[4] V. K. R. Kandavli and H. Kar, “Novel realizability criterion for saturation overflow oscillation-free 2-D digital filters based on the Fornasini-Marchesini second model,” <i>Circuits, Systems, and Signal Processing</i>, vol. 40, no. 10, pp. 5220–5233, Oct. 2021. (Impact Factor: 2.311)</p> <p>[5] S. Singh and H. Kar, “Realization of two’s complement overflow oscillation-free 2D Lipschitz nonlinear digital filters,” <i>Journal of Control, Automation and Electrical Systems</i>, vol. 32, no. 6, pp. 1540–1552, Dec. 2021.</p>

- [6] K. Singh, V. K. R. Kandanvli, and H. Kar, "Criterion for the H_∞ suppression of overflow oscillations in fixed point digital filters employing saturation nonlinearities and external interference," *Fluctuation and Noise Letters*, vol. 21, no. 1, 2250002, 2022. (Impact Factor: 1.652)
- [7] J. Rout and H. Kar, "ISS Criterion for Lipschitz nonlinear interfered fixed-point digital filters with saturation overflow arithmetic," *Circuits, Systems, and Signal Processing*, vol. 41, no. 2, pp. 1038–1051, Feb. 2022. (Impact Factor: 2.311)
- [8] S. Singh, N. Agarwal, and H. Kar, "Criterion for the global asymptotic stability of fixed-point Lipschitz nonlinear digital filter with 2's complement overflow arithmetic," *Journal of Circuits, Systems and Computers*, vol. 31, no. 6, 2250110, Feb. 2022. (Impact Factor: 1.278)
- [9] A. Srivastava, R. Negi, and H. Kar, "Guaranteed cost controller for discrete time-delayed systems with actuator saturation," *Transactions of the Institute of Measurement and Control*, vol. 44, no. 6, pp. 1163–1177, April 2022. (Impact Factor: 2.146)
- [10] S. Singh and H. Kar, "Realization of overflow oscillation-free fixed-point digital filters with 2's complement arithmetic," *International Journal of Electronics Letters*, vol. 10, no. 4, pp. 436–446, 2022.
- [11] N. Agarwal and H. Kar, "Novel criterion for preventing overflow oscillations in fixed-point digital filters with state saturation," *IEEE Signal Processing Letters*, vol. 29, no. 5, 1287–1291, May 2022. (Impact Factor: 3.201)
- [12] D. Chaurasia, K. Singh, V. K. R. Kandanvli and H. Kar, "Stability of uncertain 2-D discrete delayed systems with saturation," *International Journal of Advanced Technology and Engineering Exploration*, vol. 9 (91), pp. 771-787, June 2022.
- [13] K. Singh, V. K. R. Kandanvli, and H. Kar, "Limit cycle-free realization of discrete-time delayed systems with external interference and finite wordlength nonlinearities," *Circuits, Systems, and Signal Processing*, vol. 41, pp. 4438-4454, Aug. 2022, doi: 10.1007/s00034-022-02007-5. (Impact Factor: 2.311)
- [14] N. Agarwal and H. Kar, "Robust stability criterion for state-delayed discrete-time systems combined with a saturation operator on the state-space," *Circuits, Systems, and Signal Processing*, vol. 41, pp. 5392-5413, Oct. 2022, doi: 10.1007/s00034-022-02037-z. (Impact Factor: 2.311)
- [15] N. Agarwal and H. Kar, "Novel global asymptotic stability conditions for discrete-time systems with time-varying delay and generalized overflow arithmetic," *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 70, no. 2, pp. 796-800, Feb. 2023, doi: 10.1109/TCSII.2022.3171822. (Impact Factor: 3.691)
- [16] S. Singh and H. Kar, "Stability of 2D Lipschitz nonlinear digital filters in Fornasini–Marchesini second

	<p>model with overflow arithmetic,” <i>Journal of Control, Automation and Electrical Systems</i>, vol. 34, pp. 50-59, Feb. 2023.</p> <p>[17] N. Agarwal and H. Kar, "Novel stability criterion for 2-D digital filters with saturation arithmetic," <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i>, vol. 70, no. 4, pp. 1635-1639, April 2023, doi: 10.1109/TCSII.2022.3229072.</p> <p>[18] M.K. Kumar and H. Kar, “New criterion for the realization of 2-D interfered digital filters described by the Fornasini–Marchesini second local state-space model,” <i>Circuits, Systems, and Signal Processing</i>, vol. 42, pp. 3117–3137, May 2023. https://doi.org/10.1007/s00034-022-02248-4.</p> <p>[19] S. Singh and H. Kar, “Prevention of overflow oscillations in fixed-point 2D digital filters based on the Fornasini–Marchesini second model,” <i>Journal of Control, Automation and Electrical Systems</i>, published online 24 May 2023. https://doi.org/10.1007/s40313-023-01010-8.</p> <p>[20] P.K. Gupta, K. Singh, V.K.R. Kandanvli, and H. Kar, “New criterion for the stability of discrete-time systems with state saturation and time-varying delay,” <i>Journal of Control, Automation and Electrical Systems</i>, published online 02 June 2023. https://doi.org/10.1007/s40313-023-01005-5.</p> <p>[21] A. Srivastava, R. Negi, and H. Kar, “Optimal guaranteed cost control of discrete-time uncertain systems subjected to state saturation nonlinearity,” <i>Transactions of the Institute of Measurement and Control</i>, published online 22 June 2023. doi:10.1177/01423312231181977.</p>
Prof. V.K. Srivatava	<ol style="list-style-type: none"> 1. Singh, A.K., Srivastava, V.K. A tri-nucleotide mapping scheme based on residual volume of amino acids for short length exon prediction using sliding window DFT method <i>Network Modeling Analysis in Health Informatics and Bioinformatics</i> Vol. 9 (26) 2020. SCOPUS 2. Priyank Khare, Vinay Kumar Srivastava A Novel Dual Image Watermarking Technique Using Homomorphic Transform and DWT <i>Journal of Intelligent Systems (Scopus, E-SCI)</i> September 2020 3. Singh, Amit & Srivastava, Vinay. (2021). Improved filtering approach for identification of protein-coding regions in eukaryotes by background noise reduction using S–G filter. <i>Network Modeling Analysis in Health Informatics and Bioinformatics</i>. 10. 10.1007/s13721-021-00293-8. 4. Priyank Khare, Vinay Kumar Srivastava A reliable and secure image watermarking algorithm using homomorphic transform in DWT domain <i>Multidimensional Systems and Signal Processing</i>, (Online First Articles 04 June 2020) January 2021 https://doi.org/10.1007/s11045-020-00732-1, 2020 5. Amit Kumar Singh and Vinay Kumar Srivastava, “DSP techniques for protein coding region identification based on background noise and nonlinear phase delay reduction from period-3 spectrum using zero phased anti-notch filter and Savitzky-Golay (S-G) filter” <i>International Journal of Computational Biology and Drug Design</i>, January 2021

6. Priyank Khare, Vinay Kumar Srivastava A Secured and Robust Medical Image Watermarking Approach for Protecting Integrity of Medical Images Transactions on Emerging Telecommunications Technologies DOI: 10.1002/ett.3918 ISBN: 21612020 3915 21615748
7. Thakkar, Falgun & Srivastava, Vinay. (2021). An adaptive, secure and imperceptible image watermarking using swarm intelligence, Arnold transform, SVD and DWT. *Multimedia Tools and Applications*. 80. 1-18. 10.1007/s11042-020-10220-0.
8. Amit Kumar Singh and Vinay Kumar Srivastava, "Bidirectional filtering approach for the improved protein coding region identification in eukaryotes" Accepted on 15 February 2022 in *Network Modeling Analysis in Health Informatics and Bioinformatics* (2022) 11:13, <https://doi.org/10.1007/s13721-022-00358-2>
9. Divyanshu Awasthi and Vinay Kumar Srivastava, "LWT-DCT-SVD and DWT-DCT-SVD based watermarking schemes with their performance enhancement using Jaya and Particle swarm optimization and comparison of results under various attacks" *Multimedia Tools and Applications* March 2022 DOI: 10.1007/s11042-022-12456-4
10. Awasthi, D., Srivastava, V.K. Robust, imperceptible and optimized watermarking of DICOM image using Schur decomposition, LWT-DCT-SVD and its authentication using SURF. *Multimed Tools Appl* 82, 16555–16589 (2023). <https://doi.org/10.1007/s11042-022-14002-8> (SCImago, SCOPUS, SCIE) (I.F. – 3.6)
11. Awasthi, D., Srivastava, V.K. Performance enhancement of SVD based dual image watermarking in wavelet domain using PSO and JAYA optimization and their comparison under hybrid attacks. *Multimed Tools Appl* (2023). <https://doi.org/10.1007/s11042-023-14723-4>. (SCImago, SCOPUS, SCIE) March 23 (I.F. - 3.6)
12. Tiwari, A., Srivastava, V.K. Novel schemes for the improvement of lifting wavelet transform-based image watermarking using Schur decomposition. *J Supercomput* (2023). <https://doi.org/10.1007/s11227-023-05167-6>. (SCImago, SCOPUS, SCI, SCIE) March 23. (I.F. – 3.3)
13. Awasthi, D., Srivastava, V.K. Hessenberg Decomposition-Based Medical Image Watermarking with Its Performance Comparison by Particle Swarm and JAYA Optimization Algorithms for Different Wavelets and Its Authentication Using AES. *Circuits Syst Signal Process* (2023). <https://doi.org/10.1007/s00034-023-02344-z>. (SCImago, SCOPUS, SCIE) March 23 (I.F. – 2.3)
14. Awasthi, D., Khare, P., Srivastava, V.K. "BacterialWmark: telemedicine watermarking technique using bacterial foraging for smart healthcare system," *Journal of Electronic Imaging* 32(4), 042107 (29 March 2023). <https://doi.org/10.1117/1.JEI.32.4.042107> March 23 (I.F. – 1.1)

International Conferences:

1. Amit kumar Singh and Vinay Kumar Srivastava, "The Three Base Periodicity of Protein Coding Sequences and its Application in Exon Prediction" in 7th International Conference on Signal Processing and Integrated Networks (SPIN) February 2020.
2. Ranjana Dwivedi and Vinay Kumar Srivastava, "Reversible Digital Image Watermarking scheme using Histogram Shifting Method" in IEEE 8th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), November 2021
3. D. Awasthi, P. Khare and V. K. Srivastava, "Multiple Image Watermarking in YCbCr Color Space Using Schur-SVD-DCT in Wavelet Domain and its authentication using SURF," 2023 10th International Conference on Signal Processing and Integrated Networks (SPIN), Noida, India, 2023, pp. 192-197, doi: 10.1109/SPIN57001.2023.10116129.
4. D. Awasthi and V. K. Srivastava, "Dual Image Watermarking using Hessenberg decomposition and RDWT-DCT-SVD in YCbCr color space," 2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS), Greater Noida, India, 2022, pp. 1-6, doi: 10.1109/ICCCIS56430.2022.10037592.
5. A. Tiwari and V. K. Srivastava, "A Chaotic Encrypted Reliable Image Watermarking Scheme based on Integer Wavelet Transform-Schur Transform and Singular Value Decomposition," 2022 International Conference on Computing, Communication, and Intelligent Systems (ICCCIS), Greater Noida, India, 2022, pp. 581-586, doi: 10.1109/ICCCIS56430.2022.10037672.
6. Dwivedi, R., & Srivastava, V. K. (2022). Geometrically robust digital image watermarking based on Zernike moments and FAST technique. In *Advances in VLSI, Communication, and Signal Processing: Select Proceedings of VCAS 2021* (pp. 671-680). Singapore: Springer Nature Singapore
7. Tiwari, A., & Srivastava, V. K. (2022). Imperceptible Digital Image Watermarking Based on Discrete Wavelet Transform and Schur Decomposition. In *Sustainable Technology and Advanced Computing in Electrical Engineering: Proceedings of ICSTACE 2021* (pp. 119-128). Singapore: Springer Nature Singapore.
8. R Dwivedi, VK Srivastava, *Fundamental optimization methods for machine learning Statistical Modeling in Machine Learning: Concepts and Applications*, 227
9. Dwivedi, R., & Srivastava, V. K. (2022, December). An Imperceptible and Robust image watermarking using RDWT and SVD in YCbCr color space. In *2022 IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)* (pp. 1-5).

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