Research Publications:

Publications in SCI/SCOPUS Journals

1. Pandey, Garima, and Umesh Ghanekar. "Convolutional Neural Network-Based Framework for Single Image Superresolution of Magnetic Resonance Imaging Images Using Multiscale Feature Extraction and Attention Mechanism." *Pattern Recognition and Image Analysis* 35, no. 1 (2025): 31-43.
2. Saharan, Sunita, Umesh Ghanekar, and Shweta Meena. "Sulphur-decorated Ti 3 C 2 MXene structures as high-capacity electrode for Zn-ion batteries: a DFT study." *Nanoscale* (2025).
3. Deepak, A. V. S., and Umesh Ghanekar. "Next-gen image enhancement: CapsNet-driven auto-encoder model in single image super resolution." *Multimedia Tools and Applications* (2024): 1-16.
4. Saharan, Sunita, Umesh Ghanekar, Bhavana R. Shivankar, and Shweta Meena. "High-Capacity V2N MXene for Multivalent Ion Batteries: An Ab Initio Study." *The Journal of Physical Chemistry C* 128, no. 31 (2024): 12840-12848.
5. Saharan, Sunita, Umesh Ghanekar, and Shweta Meena. "V2N MXene for hydrogen storage: first-principles calculations." *The Journal of Physical Chemistry C* 128, no. 4 (2024): 1612-1620.
6. Deepak, A. V. S., and Umesh Ghanekhar. "Analysis of single image super-resolution techniques: An evolutionary study." *International Journal of Image and Graphics* 24, no. 01 (2024): 2450002.
7. Saharan, Sunita, Umesh Ghanekar, and Shweta Meena. "Theoretical investigation of the optical and electronic properties of surface engineered V 2 N MXene." *Physica Scripta* 98, no. 9 (2023): 095521.
8. Saharan, Sunita, Umesh Ghanekar, and Shweta Meena. "Black phosphorus/V3C2 MXene layered heterostructure as a sustainable cathode material for Li-ion battery: An ab initio study." *The Journal of Physical Chemistry C* 127, no. 19 (2023): 8905-8912.
9. Saharan, Sunita, Umesh Ghanekar, and Shweta Meena. "Two-Dimensional MXenes for Energy Storage: Computational and Experimental Approaches." *ChemistrySelect* 7, no. 48 (2022): e202203288.
10. Srinivasarao, V., and Umesh Ghanekar. "A new double backward distributive weighted adaptive filtering approach for speech quality improvement." *International Journal of Speech Technology* (2022): 1-6.
11. Singla, Khushboo, Rajoo Pandey, and Umesh Ghanekar. "A review on Single Image Super Resolution techniques using generative adversarial network." *Optik* 266 (2022): 169607.
12. Ghanekar, Umesh, and Shweta Meena. "Heteroatom induced tailoring electronic and optical properties of V3C2 MXene through bandgap opening: A computational insight." *Chemical Physics Letters* 799 (2022): 139639.
13. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "An efficient design of scalable reversible multiplier with testability." *Journal of Circuits, Systems and Computers* 31, no. 10 (2022): 2250179.
14. Pandey, Garima, and Umesh Ghanekar. "A conspectus of deep learning techniques for single-image super-resolution." *Pattern Recognition and Image Analysis* 32, no. 1 (2022): 11-32.
15. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "Design for stuck-at fault testability in Toffoli–Fredkin reversible circuits." *National Academy Science Letters* 44, no. 3 (2021): 215-220.
16. Pandey, Garima, and Umesh Ghanekar. "Single image super-resolution using multi-scale feature enhancement attention residual network." *Optik* 231 (2021): 166359.
17. Srinivasarao, V., and Umesh Ghanekar. "A novel double pole transfer function-single frequency filtering approach for speech enhancement." *Transactions on Emerging Telecommunications Technologies* 31, no. 12 (2020): e4038.
18. Srinivasarao, V., and Umesh Ghanekar. "Speech intelligibility enhancement: a hybrid wiener approach." *International Journal of Speech Technology* 23 (2020): 517-525.
19. Srinivasarao, V., and Umesh Ghanekar. "Speech enhancement-an enhanced principal component analysis (EPCA) filter approach." *Computers & Electrical Engineering* 85 (2020): 106657.
20. Pandey, Garima, and Umesh Ghanekar. "Classification of priors and regularization techniques appurtenant to single image super-resolution." *The Visual Computer* 36, no. 6 (2020): 1291-1304.
21. Bodana, D., N. M. Tiwari, S. Ranjan, and U. Ghanekar. "Estimation of the depth of penetration in a plunging hollow jet using artificial intelligence techniques." *Archives of Materials Science and Engineering* 103, no. 2 (2020).

22. Pandey, Garima, and Umesh Ghanekar. "Variance based external dictionary for improved single image super-resolution." *Pattern Recognition and Image Analysis* 30 (2020): 70-75.
23. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "Design of reversible arithmetic logic unit with built-in testability." *IEEE Design & Test* 36, no. 5 (2019): 54-61.
24. Singh, Ashutosh Kumar, Hari Mohan Gaur, and Umesh Ghanekar. "Fault detection in multiple controlled Fredkin circuits." *IET Circuits, Devices & Systems* 13, no. 5 (2019): 723-729.
25. Sasamal, Trailokya Nath, Ashutosh Kumar Singh, and Umesh Ghanekar. "Design and implementation of QCA D-flip-flops and RAM cell using majority gates." *Journal of Circuits, Systems and Computers* 28, no. 05 (2019): 1950079.
26. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "Simplification and modification of multiple controlled Toffoli circuits for testability." *Journal of Computational Electronics* 18 (2019): 356-363.
27. Sharma, Surbhi, and Umesh Ghanekar. "Spliced Image Classification and Tampered Region Localization Using Local Directional Pattern." *International Journal of Image, Graphics & Signal Processing* 11, no. 3 (2019).
28. Srinivasarao V. and Umesh Ghanekar. "A brief review on advancements in Kalman filtering and phase based modulation domain speech enhancement", International Journal of Innovative Technology and Exploring EngineeringVolume 8, Issue 8, Pages 12 - 15June 2019
29. Sharma, Surbhi, and Umesh Ghanekar. "A hybrid technique to discriminate Natural Images, Computer Generated Graphics Images, Spliced, Copy Move tampered images and Authentic images by using features and ELM classifier." *Optik* 172 (2018): 470-483.
30. Sasamal, Trailokya Nath, Ashutosh Kumar Singh, and Umesh Ghanekar. "Efficient design of coplanar ripple carry adder in QCA." *IET Circuits, Devices & Systems* 12, no. 5 (2018): 594-605.
31. Gaurav, Kumar, and Umesh Ghanekar. "Image steganography based on Canny edge detection, dilation operator and hybrid coding." *Journal of Information Security and Applications* 41 (2018): 41-51.
32. Pandey, Garima, and Umesh Ghanekar. "A compendious study of super-resolution techniques by single image." *Optik* 166 (2018): 147-160.
33. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "Testable design of reversible circuits using parity preserving gates." *IEEE Design & Test* 35, no. 4 (2017): 56-64.
34. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Gaur. "Reversible circuits with testability using quantum controlled NOT and swap gates." *Indian Journal of Pure & Applied Physics (IJPAP)* 56, no. 7 (2018): 529-532.
35. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "Design for Stuck-at Fault Testability in Multiple Controlled Toffoli-based Reversible Circuits." *Defence Science Journal* 68, no. 4 (2018).
36. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "Offline testing of reversible logic circuits: an analysis." *Integration* 62 (2018): 50-67.
37. Sharma, Surbhi, and Umesh Ghanekar. "Dominating direction based an efficient copy–move image tampering detection technique." *The Imaging Science Journal* 66, no. 4 (2018): 254-262.
38. Sasamal, Trailokya Nath, Ashutosh Kumar Singh, and Umesh Ghanekar. "Toward efficient design of reversible logic gates in quantum-dot cellular automata with power dissipation analysis." *International Journal of Theoretical Physics* 57 (2018): 1167-1185.
39. Sasamal, T. N., A. K. Singh, and U. Ghanekar. "Design of non-restoring binary array divider in majority logic-based QCA." *Electronics Letters* 52, no. 24 (2016): 2001-2003.
40. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "A new DFT methodology for k-CNOT reversible circuits and its implementation using quantum-dot cellular automata." *Optik* 127, no. 22 (2016): 10593-10601.
41. HM Gaur, AK Singh, U Ghanekar, 'A Comprehensive and Comparative Study on Online Testability for Reversible Logic', Pertanika J. Sci. Technol., Vol 24(2), 2016.
42. R. Pandey and U. Ghanekar, "Denoising of colour images using window contrast enhancement and vector alignment," *AEU-International Journal of Electronics and Communications*, vol. 69, no. 2, pp. 523-528, 2015.
43. HM Gaur, AK Singh, U Ghanekar, 'A Review on Online Testability for Reversible Logic', Procedia Computer Science, 2015, vol. 70, pp. 384-391.

44. U. Ghanekar and R. Pandey, “An intensity independent fixed valued impulse noise detector for image restoration,” *AEU-International Journal of Electronics and Communications,* vol. 68, no. 3, pp. 210-215, 2014.
45. R. Pandey, A. K. Singh and U. Ghanekar, “Local pixel statistics based impulse detection and hybrid color filtering for restoration of digital color images,” *AEU-International Journal of Electronics and Communications,* vol. 65, no. 12, pp. 1073-1077, 2011.
46. A.K. Tripathi, U. Ghanekar and S Mukhopadhyay, “Switching median filter: advanced boundary discriminative noise detection algorithm,” *IET Image Process.,* vol 5, iss 7, pp 598-610, 2011.
47. U. Ghanekar, A. K. Singh and R. Pandey, “A contrast enhancement-based filter for removal of random valued impulse noise,” *Signal Processing Letters, IEEE,* vol. 17, no. 1, pp. 47-50, 2010.

Publications in Non SCI Journals

1. Priya darshni, Umesh Ghanekar, “A new hybrid steganographic method for histogram preservation”, *Int. Journal of Electrical and Electronics Engg* , vol.2,spl.issue-1 pp. 1694-2426, 2015.
2. A. Singh, U ghanekar, C Kumar and G Kumar, “An Efficient Morphological Salt and Pepper Noise Detector,” *International Journal of Advanced Networking and Application,* vol.2, pp. 873-875, 2011.
3. U. Ghanekar, A. K. Singh and R. Pandey, “Random Valued Impulse Noise Removal in Colour Images using Adaptive Threshold and Colour Correction,” *ACEEE Int. J. on Signal & Image Processing,* Vol. 01, No. 03, pp. 6-8, Dec 2010.
4. R. Pandey and U. Ghanekar, “Blind Equalization Using Neural Network in Nonstationary Environment,” *Journal of Institution of Engineers,* vol. 88, pp. pp. 25-31, May 2007.
5. A.K. Singh, U Ghanekar, AK Bandyopadhyay, “ Specifying Mobile Network using a wp-like Format Approach”, *Revista Colombiana de Computacion*, vol 6, no.2, pp59-77,2005.

International Conferences

1. Gudimella, Sunil Sriharsha, Umesh Ghanekar, and Kundan Kumar. "Image encryption with switching effects." In *Advances in AI for Biomedical Instrumentation, Electronics and Computing*, pp. 356-361. CRC Press, 2024.
2. Verma, Aparna, Harshad Ashok Warnekar, and Umesh Ghanekar. "Comprehensive Underwater Image Enhancement via Wavelet-Discrete Cosine Transform and Color Calibration Approach." In *2024 International Conference on Advancement in Renewable Energy and Intelligent Systems (AREIS)*, pp. 1-6. IEEE, 2024.
3. Dhawan, Ruchika, and Umesh Ghanekar. "Single-image super-resolution using rational fractal interpolation and adaptive wiener filtering." In *Proceedings of First International Conference on Computational Electronics for Wireless Communications: ICCWC 2021*, pp. 477-486. Singapore: Springer Nature Singapore, 2022.
4. Pandey, Garima, and Umesh Ghanekar. "Input image-based dictionary formation in super-resolution for online image streaming." In *International Conference on Advanced Communication and Computational Technology*, pp. 1189-1196. Singapore: Springer Nature Singapore, 2019.
5. Rathaur, Suraj, Narayan Kamath, and Umesh Ghanekar. "Software defect density prediction based on multiple linear regression." In *2020 Second International Conference on Inventive Research in Computing Applications (ICIRCA)*, pp. 434-439. IEEE, 2020.
6. Rohilla, Geetanjali, Dinesh Mathur, and Umesh Ghanekar. "Functional Verification of MAC-PHY Layer of PCI Express Gen5. 0 with PIPE Interface using UVM." In *2020 International Conference for Emerging Technology (INCET)*, pp. 1-5. IEEE, 2020.
7. Sharma, Surbhi, and Umesh Ghanekar. "Digital image forensics using local optimal-oriented pattern and ELM." In *Soft Computing: Theories and Applications: Proceedings of SoCTA 2018*, pp. 311-319. Singapore: Springer Singapore, 2020.
8. Nag, Pramit, Jyoti Harmalkar, and Umesh Ghanekar. "A Novel Hazard Analysis and Risk Assessment for Automotive Embedded System Development as Safety Element Out of Context." In *2019 3rd International Conference on Trends in Electronics and Informatics (ICOEI)*, pp. 664-669. IEEE, 2019.
9. Nag, Pramit, Umesh Ghanekar, and Jyoti Harmalkar. "A novel multi-core approach for functional safety compliance of automotive electronic control unit according to ISO 26262." In *2019 IEEE 5th International Conference for Convergence in Technology (I2CT)*, pp. 1-5. IEEE, 2019.

10. Surbhi, and Umesh Ghanekar. "Detection and localization of copy move forgery using improved centre symmetric local binary pattern for enhanced accuracy and robustness." In *Communication and Computing Systems*, pp. 265-271. CRC Press, 2019.
11. Sasamal, Trailokya Nath, Ashutosh Kumar Singh, and Umesh Ghanekar. "Design of QCA-based D flip flop and memory cell using rotated majority gate." In *Smart Innovations in Communication and Computational Sciences: Proceedings of ICSICCS 2017, Volume 2*, pp. 233-247. Springer Singapore, 2019.
12. Jain, Palak, and Umesh Ghanekar. "Robust watermarking using DWT and weighted SVD." In *2018 Second International Conference on Electronics, Communication and Aerospace Technology (ICECA)*, pp. 302-307. IEEE, 2018.
13. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "In-depth comparative analysis of reversible gates for designing logic circuits." *Procedia Computer Science* 125 (2018): 810-817.
14. Jain, Palak, and Umesh Ghanekar. "Robust watermarking technique for textured images." *Procedia Computer Science* 125 (2018): 179-186.
15. Deepak, A. V. S., and Umesh Ghanekar. "RDCN-SR: Integrating regression model with deep convolutional networks for image super-resolution." In *2017 international conference on intelligent computing and control systems (ICICCS)*, pp. 623-628. IEEE, 2017.
16. Deepak, A. V. S., and Umesh Ghanekar. "Integrating regression model with Gaussian mixture model for image super-resolution." In *2017 International Conference on Intelligent Computing and Control Systems (ICICCS)*, pp. 1281-1286. IEEE, 2017.
17. Ghanekar, Umesh, and Rajoo Pandey. "Adaptive threshold based impulse detection for restoration of digital images." In *2016 IEEE International Conference on Advances in Electronics, Communication and Computer Technology (ICAECCT)*, pp. 12-16. IEEE, 2016.
18. Sasamal, Trailokya Nath, Ashutosh Kumar Singh, and Umesh Ghanekar. "An efficient single-layer crossing based 4-bit shift register using QCA." In *Advanced Computing and Communication Technologies: Proceedings of the 10th ICACCT, 2016*, pp. 315-325.
19. Trailokya Nath Sasamal, Ashutosh Kumar Singh, Umesh Ghanekar, "Design and analysis of ultra-low power QCA parity generator circuit," *accepted for publication in 1st Springer International Conference on Emerging Trends and Advances in Electrical Engineering and Renewable Energy*, SMIT, Sikkim, 17-18 dec 2016.
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21. Gupta, Vikas, Vijayshri Chaurasia, and Madhu Shandilya. "Random-valued impulse noise removal using adaptive dual threshold median filter." *Journal of visual communication and image representation* 26 (2015): 296-304.
22. Rao, KM Varuna, and Umesh Ghanekar. "Transform domain fragile watermarking using fermat number transform." In *2015 IEEE International Conference on Computational Intelligence and Computing Research (ICCIC)*, pp. 1-5. IEEE, 2015.
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24. Sharma, Surbhi, and Umesh Ghanekar. "A rotationally invariant texture descriptor to detect copy move forgery in medical images." In *2015 IEEE International Conference on Computational Intelligence & Communication Technology*, pp. 795-798. IEEE, 2015.
25. Gaur, Hari Mohan, Ashutosh Kumar Singh, and Umesh Ghanekar. "A review on online testability for reversible logic." *Procedia Computer Science* 70 (2015): 384-391.
26. Kavya Sharma, Shweta Meena, Umesh Ghanekar, "Hybrid Technique for Copy-Move Forgery Detection Using L*a*b Color Space", 1st Int. Conf. on Electronics Design Innovations and Technologies (EDIT), pp. 795-798 April, 2015
27. R. Pandey, A. Kumar and U. Ghanekar, "Local Pixel Statistics and Correlation Based Impulse Detection for Denoising of Digital Color Images," in, 3rd *Int. Conf. on Emerging Trends in Engineering and Technologies (ICETET-2013)*, vol. 1, no. 5, New Delhi, India, pp. 71-75, April 14, 2013.
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29. A. Kumar, R. Pandey and U. Ghanekar, "ICI Cancellation in MIMO-OFDM Systems," in *3rd Int. Conf. on Emerging Trends in Engineering and Technologies (ICETET-2013), vol. 1, no. 5, New Delhi, India, pp. 23-28, April 14, 2013.*
30. Ghanekar, Umesh, Awadhesh Kumar Singh, and Rajoo Pandey. "Impulse Noise Removal from Color Images Using Adaptive Neuro–fuzzy Impulse Detector." In *Contemporary Computing: Third International Conference, IC3 2010, Noida, India, August 9-11, 2010. Proceedings, Part I 3*, pp. 373-380. Springer Berlin Heidelberg, 2010.
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32. Ghanekar, Umesh, Awadhesh Kumar Singh, and Rajoo Pandey. "A new scheme for impulse detection in switching median filters for image filtering." In *International Conference on Computational Intelligence and Multimedia Applications (ICCIMA 2007)*, vol. 3, pp. 442-446. IEEE, 2007.
33. A. K. Singh, Umesh Ghanekar and R. Pandey, "Noise Removal From Images Using Adaptive Neuro –fuzzy Impulse Detector," in *Int. Conf. on IT'07*, H. I. T. (W. B.), pp. 531-535. March 19-21, 2007.
34. R. Pandey and U. Ghanekar, "Fuzzy Filtering Algorithms for Image Processing: Performance Evaluation of Various Approaches," *Int. Conf. on Cognition and Recognition, ICCR05,* Mysore, Dec. 2005.

Ph. D Supervised

Sr. No.	Name	Roll no.	Title	Year	
1	Trailokya Nath Sasamal	2K14/NITK/Ph.D/6140010	Optimal Design for Quantum-Dot Cellular Automata Based Logic Circuits	Jan-18	Dr. A.K.Singh
2	Hari Mohan Gaur	2K14/NITK/Ph.D/6140059	Testable Designs of Toffoli Fredkin Reversible Circuits	Jun-18	Dr. A.K.Singh
3	Kumar Gaurav	2K14/NITK/Ph.D/6140078	Performance Evaluation and Improvement of Edge based Image stenography.	2019	--
4	Surbhi Sharma	2K13/NITK/Ph.D/6130060	Detection and Localization Algorithms for Spliced or Copy Move Tampered Natural Images	2020	--
5	Garima Pandey	2K16/NITK/Ph.D/6160006	Performance Evaluation and Improvements in Learning based Single Image Super-Resolution Techniques in spatial domain	Jan-21	--
6	Srinivasarao Vattikuti	2K16/NITK/Ph.D/6160022	Performance Evaluation and Improvements of Speech Enhancement Techniques in Noisy Environment	Aug-21	--
7	Sunita	2K19/NITK/PhD/61900102	Computational Studies of Mxene Structures for Optoelectronic and Energy Storage Applications	Feb-25	Dr. Shweta Meena
8	A. V. S. Deepak	2K19-NITK-PhD-61900073	Ongoing		---
9	Khushboo Singla	2K20/NITK/Ph.D/62000022	Ongoing		Dr. Rajoo Pandey
10	Neha	2K22/NITK/Ph.D/62100054	Ongoing		Dr. Rajoo Pandey

M. Tech Supervised in ECE				
Sr. No.	Name	Roll no.	Title	Year
1	SUNIL SRIHARSHA GUDIMELLA	32215107	EFFICIENT ENCRYPTION OF IMAGES USING CHAOTIC BASED S-BOXES	2024
2	SWATI SAINI	32115105	PRE-SILICON VALIDATION OF CORE POWER MANAGEMENT	2023
3	MOHIT KUMAR GHANDIYAN	32118232	LOW POWER SYNTHESIS OF A SoC SUBSYSTEM ON FUSION COMPILER	2023
4	MIDATHANA VAMSI KRISHNA	32118219	PHYSICAL IMPLEMENTATION AND POWER ANALYSIS OF DIGITAL CLOCK CIRCUIT	2023
5	Ehtesham Hussain	32115121	RTL SIGNOFF REQUIREMENT OF SOC IN DESIGN AND VERIFICATION	2023
6	LAASYA TAMRAPARNI	32118231	PnR FLOW OF A DESIGN AND LOW POWER METHODOLOGIES	2023
7	GAGANDEEP KAUR	31905121	MULTI EXPOSURE IMAGE FUSION BASED ON LUMINANCE ADJUSTMENT	2021
8	RUCHIKA DHAWAN	31905125	PERFORMANCE EVALUATION AND IMPROVEMENTS IN INTERPOLATION BASED SINGLE IMAGE SUPER-RESOLUTION TECHNIQUES	2021
9	SURAJ RATHAUR	31805106	DESIGN OF CODE QUALITY PREDICTOR AND ANALYZER	2020
10	GEETANJALI ROHILLA	31811117	FUNCTIONAL VERIFICATION OF TESTCHIPS	2020
11	PRAMIT NAG	31711103	DESIGN OF A FAULT TOLERANT ELECTRONIC CONTROL UNIT FOR AUTOMOTIVE BATTERY PACK SYSTEM	2019
12	RUCHI	31705125	CLASSIFICATION AND PERFORMANCE EVALUATION OF SPATIAL DOMAIN IMAGE STEGANOGRAPHY TECHNIQUES	2019
13	PALAK JAIN	31605109	TRANSFORM DOMAIN BASED ROBUST WATERMARKING TECHNIQUE FOR IMAGE VERIFICATION	2018
14	A.V.S.DEEPAK	31505106	PERFORMANCE ENHANCEMENT OF SINGLE IMAGE SUPER-RESOLUTION TECHNIQUES USING POST PROCESSING SCHEMES	2017
15	VARUN RAO	3142503	TRANFORM DOMAIN FRAGILE WATERMARKING TECHNIQUE FOR IMAGE INTEGRITY VERIFICATION	2016
16	PRIYADARSHANI	3132524	PERFORMANCE EVALUATION AND MODIFICATION OF SPATIAL DOMAIN STEGANOGRAPHY TECHNIQUES FOR DIGITAL IMAGES	2015
17	MUKESH BAJAR	3122505	PERFORMANCE EVALUATION OF CONTOUR DETECTION METHODS OF GRADIENT IMAGES UNDER THE INFLUENCE OF MIXED NOISE	2014
18	RAJA KUNWAR	211222	AN IMAGE COMPLETION USING DIFFERENT IMAGE INPAINTING TECHNIQUES	2013
19	SUMIT KUMAR	211269	PERFORMANCE EVALUATION OF POWER REDUCTION IN CMOS DOMINO LOGIC	2013

20	NAVEEN KUMAR	211277	CONTRAST ENHANCEMENT OF GRAY SCALE IMAGES WITH PRESERVATION OF MEAN BRIGHTNESS	2013
21	ANDE SATISH	211217	THRESHOLD BASED DENOISING FOR DIGITAL IMAGES CORRUPTED WITH GAUSSIAN NOISE USING WAVELET TRANSFORM	2013
22	PIYUSH MITTAL	210219	PERFORMANCE EVALUATION OF VARIOUS IMAGE SEGMENTATION TECHNIQUES	2012
23	AJAY KUMAR	210204	PERFORMANCE EVALUATION OF VARIOUS IMAGE COMPRESSION TECHNIQUES FOR MONOCHROME DIGITAL IMAGES	2012
24	MALIK MOHAMMED IKRAM M.	210256	ANALYSIS AND DESIGN OF TWO STAGE LOW POWER ULTRA WIDE BAND CMOS LOW NOISE AMPLIFIER WITHOUT BAND REJECTION	2012
25	MANOJ KUMAR ALOK	210252	PERFORMANCE EVALUATION OF VARIOUS COLOR IMAGE ENHANCEMENT TECHNIQUES	2012
26	ANOOP SINGHAL	209310	PERFORMANCE EVALUATION OF GAUSSIAN NOISE REMOVAL TECHNIQUES FOR MONOCHROME DIGITAL IMAGES	2011
27	INDU BHARTI	209367	PERFORMANCE EVALUATION OF MULTIPLIER USING DYNAMIC LOGIC	2011
28	NEHA	209368	DESIGN AND IMPLEMENTATION OF RF MEMS INDUCTORS	2011
29	ALOK SINGH	207310	STUDY OF VARIOUS SALT & PEPPER NOISE DETECTORS FOR MONOCHROME IMAGES	2009
30	RASHMI	207320	PERFORMANCE EVALUATION OF VARIOUS RANDOM VALUED IMPULSE	2009
31	ABHISHEK TRIPATHI	2303/06	PERFORMANCE EVALUATION OF NON LINEAR FILTERS FOR IMPULSE NOISE DETECTION	2008
32	PRASHANT AGGARWAL	2319/06	PERFORMANCE EVALUATION OF ADAPTIVE IMAGE ENHANCEMENT TECHNIQUE	2008
33	ANIL KUMAR VUPPALA	796/05	A STUDY OF FUZZY FILTERS FOR IMAGE FILTERING	2007
34	RAMNARESH	806/04	STUDY & PERFORMANCE EVALUATION OF DIGITAL MARKING	2006
35	D. SHANKAR RAO	800/04	IMPLEMENTATION & ANALYSIS OF SPATIAL AND FREQUENCY DOMAIN STEGANOGRAPHIC METHODS	2006
36	MANISH ARYA	2K2805	IMPLEMENTATION AND ANALYSIS OF STEGANOGRAPHY ALGORITHMS FOR AUDIO AND VISUAL INFORMATION	
37	DEEPAK	792/03	IMAGE ENHANCEMENT AND ITS APPLICATIONS	
38	RAJIV DAHIYA	498819	STUDY OF UNITARY TRANSFORMS AND ITS APPLICATIONS TO IMAGE PROCESSING	
39	SUSHIL KANSAL	499794	A METHOD FOR IMPLEMENTING MOBILE STATION LOCATION IN GSM	
40	KULDEEP SINGH JAMWAL	497805	DICTIONARY BASED DATA COMPRESSION	
41	PRAKASH CHAND	9496793	PERFORMAN+D20:D43CE EVALUATION OF A RANDOM PACKET SELECTION POLICY FOR MULTICAST SWITCHING	
M.Tech Supervised in Civil Engineering Department				
1	ASHWINI TIWARI	31902519	AERATION PERFORMANCE OF MONTANA FLUME	2021

2	DIKSHANT BODANA	31802515	STUDY OF JET AERATION SYSTEMS	2020
3	AYUSHI VERMA	31802510	STUDY OF AERATION PERFORMANCE OF GABION STEPPED WEIRS	2020
4	RITU BHATT	31802502	AERATION STUDY OF GABION SPILLWAY	2020

Sr. No.	**FDP Conducted**	Year
1	Functional Hybrid Materials for Clean Energy & Healthcare Applications (SMART-NANO-2024)	2024
2	Image Processing and its Applications Using MATLAB (IPAM)	2023
3	Wireless Communication and Signal Processing with hands-on in MATLAB (WCSPHM-2019)	2019
4	Emerging Trends in Wireless Communication and Signal Processing (ETWCSP-2019)	2019

Sr. No.	**Conferences Organised**	Year
1	National Conference on Sports: Education, Psychology & Management	2023
2	2014 IEEE 6th India International Conference on Power Electronics (IICPE)	2014

Sr. No.	**Lectures Delievered**		Year
1	Image Processing and its Applications	Santhiram Engineering College, Nandyal	2024
2	Image Processing	MIMT, Greater Noida (U.P)	2024
3	Image Processing and its Applications Using MATLAB (IPAM)	NIT kkr	2023
4	Fundamentals of Image Processing and its Applications	DIAT Pune	2023

Awards:

Member of IEEE

Life member of ISTE

Contribution:

Institute Level

Sports In-charge
Member BOG
Chairman/HOD
Hostel Warden
Member Anti ragging squad
Center superintendent/ Supervisory duties in Exams.
Member M. Tech./B.Tech Admission committee
Prof. In-charge Photography Club
Professor In-charge Teacher's Flat
Member DRC for School of VLSI and Embedded System

Dept. Level

Member BOS, DAC, DRC

Time-table incharge

Lab incharge of various labs at different times