

## Research Publications By

1) Dr. M.R. Khan (Principal GEC, Raipur)

Professor Electronics & Telecommunication Department

### Patents:

1. Nitesh Kumar Sharma, Shanti Rathore and **M.R. Khan**. Approximate Vedic Multiplier for Increase in Speed, Accuracy and Reduce in Power, Area. (AusPat2020101564)
2. Deepesh Kumar Gautam, Nitesh Kumar Sharma and **M.R. Khan**. Soil Salinity Degradation Estimation by Regression Algorithm Using Agricultural Internet of Things. (AusPat2020102098)
3. Preesat Biswas, **M.R. Khan** and Shanti Rathore. To Design Modern digital Communication System Various QAM Reduce SNR and BER Using Raised Cosine Filter. (AusPat2020102072)
4. Himanshu Agrawal, **M.R. Khan** and Jainendra Jain Rain water Protection Mechanism (AusPat2020102559)
5. Himanshu Agrawal, **Dr. M.R. Khan**, Dr. Jainendra Jain, Dr. Vinay Kumar Singh. KAVYA – The Sky Hanging Showcase (AusPat2020102946)
6. Himanshu Agrawal, **Dr. M.R. Khan** and Dr. Jainendra Jain. Multi Utility Box for Bikes (AusPat2020102739)
7. Himanshu Agrawal, **Dr. M.R. Khan** and Dr. Jainendra Jain. MAXINE- The Modular Cooling Pad for evaporative cooling Systems (AusPat2021100626)
8. Preesat Biswas, **M.R. Khan**, Shanti Rathore and Nitesh Kumar Sharma. CORDIC Based QR Decomposition for MIMO (AusPat 2021100315)

### Books:

1. **Dr. M.R. Khan**, Nitesh Kumar Sharma and Deepesh Kumar Gautam, "A Novel Approach of Ancient Vedic Mathematics in Engineering." ISBN:9789388672214.
2. **Dr. M.R. Khan**, Nitesh Kumar Sharma, Preesat Biswas (2021). "Basic Adaptive Signal Processing and Its MATLAB Simulation" ISBN 9781913482756 Rubicon Publication, London, England.
3. **Dr. M.R. Khan**, Nitesh Kumar Sharma, Preesat Biswas (2021). "Computers and Communication" ISBN 9781913482749 Rubicon Publication, London, England.
4. **Dr. M.R. Khan**, Nitesh Kumar Sharma, Preesat Biswas (2021). "Fundamental of Computers with Hardware and Software" ISBN 9783964922250 Weser Publication, Zittau, Germany.
5. **Dr. M.R. Khan**, Nitesh Kumar Sharma, Preesat Biswas (2021). "Basic Computer Literacy and Its Application Domains" ISBN 9783964922243 Weser

- Publication, Zittau, Germany.
6. **Dr. M.R. Khan**, Lukesh Kumar Sahu, Nitesh Kumar Sharma “A Practical Approach of Electrical Machine” ISBN 9781913482688 Rubicon Publication, London, England.
  7. Nitesh Kumar Sharma, **Dr. M.R. Khan**, Dr. Shanti Rathore “Basics of Linear and Non-Linear Control Systems” ISBN 9781913482640 Rubicon Publication, London, England.
  8. **Dr. M.R. Khan**, Nitesh Kumar Sharma, Preesat Biswas, Dr. Shanti Rathore “Adaptive Modeling of Stochastic Signal with Wiener and LP filter” ISBN 9783964922472 Weser Publication, Zittau, Germany.
  9. Preesat Biswas, Nitesh Kumar Sharma, **Dr. M. R. Khan**, Dr. Shanti Rathore “Adaptive Signal in model of Stochastic Processes, Wiener Filters & Linear Prediction” ISBN 9783964922472 Weser Publication, Zittau, Germany.
  10. Preesat Biswas, Dr. Jainendra Jain, **Dr. M.R. Khan** “Adaptive Signal Processing Least Square Algorithms with MATLAB Volume-II” ISBN 9781913482626 Rubicon Publication, London, England.
  11. Preesat Biswas, **Dr. M.R. Khan**, Dr. Jainendra Jain “Adaptive Signal Processing Least Square Algorithms with MATLAB Volume-III” ISBN 9783964922496 Weser Publication, Zittau, Germany.
  12. Nitesh Kumar Sharma, Deepesh Kumar Gautam, **Dr. M.R. Khan** “Basic Electronics (मुलभुतइलेक्ट्रॉनिकी)” ISBN 9788195102518 Deepak Prakashan Gwalior, India

### Book Chapters:

1. Chapter Name- Amplitude Modulation
  - a. Authors- **Dr. M.R. Khan**, Nitesh Kumar Sharma, Dr. Shanti Rathore, Deepesh Kumar Gautam and Preesat Biswas
  - b. Book- Advances in Multidisciplinary and Current Research (Volume-8) ISBN 9781913482657.
2. Chapter Name- Noise in AM Systems
  - a. Authors- **Dr. M.R. Khan**, Nitesh Kumar Sharma, Dr. Shanti Rathore, Deepesh Kumar Gautam and Preesat Biswas
  - b. Book- Research Trends in Applied Research (Volume -8) ISBN 9783964922427.
3. Chapter Name -Noise in FM System
  - a. Authors - **Dr. M.R. Khan**, Nitesh Kumar Sharma, Dr. Shanti Rathore, Deepesh Kumar Gautam and Preesat Biswas
  - b. Book- Research Trends in Multidisciplinary Research and Development (Volume - 7) ISBN 9783964922434.
4. Chapter Name- VLSI Design
  - a. Authors- **Dr. M.R. Khan**, Nitesh Kumar Sharma, Nitesh Kumar Narang, Dr. Shanti Rathore and Deepesh Kumar Gautam.
  - b. Book- Recent Advances in Academic Research (Volume-3) ISBN 9783964922410.

5. Chapter Name- Angel Modulation
  - a. Authours- **Dr. M.R. Khan**, Nitesh Kumar Sharma, Dr. Shanti Rathore, Deepesh Kumar Gautam and Preesat Biswas.
  - b. Book- Current Trends in Multidisciplinary Research (Volume-5) ISBN 9781913482657
6. Chapter Name-Block chain: IoT security, privacy and resource challenges
  - a. Authours- **Dr. M.R. Khan**, Probira Kumar Sethy, Chanki Pandey, Santi Kumari Behera, Sharad Chandra Rahpoot.
  - b. Book name:Recent Trends in Communication and Electronics (1<sup>st</sup> Edition -2021) CRC Press, Page No-5, eBook ISBN – 9781003139838
7. Chapter Name-An automated chilli yield estimation approach based on image processing
  - a. Authours- **Dr. M.R. Khan**, Probira Kumar Sethy, Chanki Pandey, Jaya Vishwakarma, BihutiBhusan Nayak, Santi Kumari Behera, Preesat Biswas.
  - b. Book name: Recent Trends in Communication and Electronics (1<sup>st</sup> Edition -2021) CRC Press, Page No-5, eBook ISBN – 9781003139838.

#### **Journals:**

1. Neha Shivhare, Dr. Shanti Rathod, **Dr. M. R Khan**, “Early Dementia detection using 1D CNN Model”,Journal of Scientific Research in Allied Sciences (JUSRES) Vol. 07, Issue 5, Oct 2021, Pp 152-164, ISSN 2455-5800.
2. Neha Shivhare, Dr. Shanti Rathod, **Dr. M. R Khan**, “Cognitive Impairment Detection Using GRU” Review of Research, Vol 11, Issue 3, Dec 2021, ISSN 2449-894X.
3. Neha Shivhare, Dr. Shanti Rathod, **Dr. M. R Khan**, Aditi Rai,“Automatic Speech analysis of Conversations for Dementia Detection Using Bi-LSTM Model”, Book chapter in CRC Press ,Taylor & Francis Group book titled “Swarm Intelligence and Machine Learning: Applications in Healthcare”(Accepted)
4. Nitesh Kumar Sharma, Deepesh Kumar Gautam, Lukesh Kumar Sahu, **M. R. Khan**, Jainendra Jain "CORDIC algorithm for fixed point." Materials Today: Proceedings (Elsevier)
5. Nitesh Kumar Sharma, Deepesh Kumar Gautam, Lukesh Kumar Sahu, **M. R. Khan**, "First wave of covid-19 in India using IoT for identification of virus." Materials Today: Proceedings (Elsevier)
6. Nitesh Kumar Sharma, Deepesh Kumar Gautam, Shanti Rathore, **M. R. Khan**, "CNN Implementation for Detect Cheating in Online Exams During COVID-19 Pandemic: A CVRU Perspective." Materials Today: Proceedings (Elsevier)
7. C Pandey, PK Sethy, **M. R. Khan**, SK Behera, Vijaykumar K and S Panigrahi (2021). A Cost-Effective Computer-Vision Based Breast Cancer Diagnosis. The Journal of Intelligent and Fuzzy Systems, IOS Press. DOI: 10.3233/JIFS-189848 (SCI Indexed)
8. PK Sethy, SK Behera, A Komma, C Pandey and **M. R. Khan**.“Computer aid screening of COVID-19 using X-ray and CT scan images: An inner comparison”. Journal of X-Ray Science and Technology. 1 Jan.2021: 1 –

14. DOI: 10.3233/XST-200784. (SCI Indexed).
9. Nitesh Kumar Sharma, Shanti Rathore, **M. R. Khan**, "A New Speed Power Area and Accuracy (SPAA) Aware Cordic Processing Unit By Vedic Mathematics For The Application of Computer Vision." Turkish Journal of Computer and Mathematics Education (TURCOMAT), Vol.(12) (2021) 3199-3209. (Scopus)
  10. Nitesh Kumar Sharma, **M.R. Khan**, Dr. Jainendra Jain, Implementation in Direct Digital Synthesizers (DDS) Based on CORDIC Algorithm" Turkish Journal of Computer and Mathematics Education (TURCOMAT), Vol.(12) (2021) 3161-3165. (Scopus)
  11. Shanti Rathore, Nitesh Kumar Sharma, **M. R. Khan** "Multipath Reliable Routing Using Cluster Based Communication" Turkish Journal of Computer and Mathematics Education (TURCOMAT), Vol.(12) (2021) 3210-3215. (Scopus)
  12. Nitesh Kumar Sharma, Shanti Rathore, **M. R. Khan**, "Novel Coordinate Rotation Digital Computer (CORDIC) Algorithm by Ancient Vedic Mathematics Concept and Its Use on Computer Vision Applications." International Journal of Computer Science and Network Security, Vol.(20), (2020):50-57. (ESCI)
  13. Nitesh Kumar Sharma, Shanti Rathore, **M. R. Khan**, Implementation of Multiplier by CORDIC Algorithm." International Journal of Information Technology and Electrical Engineering. Vol.(9),(2020):67-72.
  14. Nitesh Kumar Sharma, Shanti Rathore, **M. R. Khan**, "CV(Computer-Vision )System By CORDIC Processing Unit" Journal of Critical Reviews. Vol.(07),(2020):2235-2241.
  15. Nitesh Kumar Sharma, Shanti Rathore, **M. R. Khan** "Analysis of Radix-4 FFT BYCORDIC Algorithm." Journal of Emerging Technologies and Innovative Research. Vol.(6),2019:1560-1564.
  16. Preesat Biswas, Shanti Rathore, **M. R. Khan** "A Simulation Performance of 5G Systems applying UFMC (Universal Filtered Multicarrier) Study" Turkish Journal of Computer and Mathematics Education. Vol (12) No.2,2021: 3176-3183(Scopus)
  17. Sharad Chandra Rajpoot Prashant Singh Rajpoot, **M. R. Khan** "Losses Mitigation & Theft Detection of Electricity by Automatic Controlled System with OFC Communication in Distribution Line" International Journal of Engineering Research and Applications (IJERA), vol. 9, no. 11, 2019, pp 42-47
  18. Nitesh Kumar Sharma, Deepesh Kumar Gautam, **M.R. Khan**, "Vedic Mathematics Implementation in Multiplier Units." Journal of Computer and Mathematical Science. Vol.(10),(2019):997-1003.
  19. Niket Nagwani, Nitesh Kumar Sharma, **M.R. Khan**, Deepesh Kumar Gautam  
"An Attendance System Unit Using the Radiofrequency Identification Concept." Journal of Computer and Mathematical Science. Vol.(10),(2019):946-953.
  20. Nogendra Kumar Sahu, Nitesh Kumar Sharma, **M. R. Khan**, Deepesh

- Kumar Gautam "Comparative study on floor cleaner." Journal of Pure Applied and Industrial Physics, Vol.(08),(2018):233-236.
21. Niket Nagwani, Nitesh Kumar Sharma, **M. R. Khan**, Deepesh Kumar Gautam "Comparative study of RFID." Journal of Pure Applied and Industrial Physics, Vol.(08),(2018):229-223.
  22. Pranjali Diwan, **M. R. Khan**, Energy Efficient Communication for WSNs using Grey-Wolf Optimization Algorithm." International Journal of Engineering and Computer Science, Vol.(05),(2016):19793-19805.
  23. Vivek Kumar Baghel, **M. R. Khan** "PSO and SVD based enhanced signal detection for cognitive radio system." International Journal of Engineering Sciences & Research Technology, Vol.(05),(2016):889-896.
  24. Vivek Kumar Baghel, **M. R. Khan** "Comparative Analysis of Energy Detection, Eigen value Detection and PSO Optimized Singular Value Detection Techniques for Cognitive Radio Networks" International Journal of Digital Application & Contemporary Research, Vol.(05),(2016):1-10.
  25. Nitesh Kumar Sharma, Jigyasha Maru, **M. R. Khan** "VLSI Implementation of an Approximate Multiplier Using Ancient Vedic Mathematics Concept." Journal of Pure Applied and Industrial Physics, Vol.(06)6(2016):71-82.
  26. Nitesh Kumar Sharma, Jigyasha Maru, **M. R. Khan** "VLSI Implementation of a Different Types of multiplier unit." International Journal of Scientific and Engineering Research, Vol.(07),(2016):685-688.
  27. Vivek Kumar Baghel, **M. R. Khan** "Covariance based spectrum detection for cognitive radio." International Journal of Science and Research,(2015):391-394.
  28. Shanti Rathore, **M. R. Khan** "Classify and enhance security level for using congestion control capability of AODV and xAOMDV protocol in MANET." International Journal of Computer Application,(2015):6-10.
  29. S.K. Patel, **M. R. Khan**, A.K. Srivastava "An Estimation of Hardware Approach, fabrication and detecting of Biquad antenna about 3GHZ." Journal of Pure Applied and Industrial Physics, Vol.(04)(2014):75-78.
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  31. Piyush Lotia, **M. R. Khan** "Speaker identification using GMM" I-manager publications
  32. Piyush Lotia, **M. R. Khan** "Significance of complementary spectral features for speaker recognition" International Journal of Research in Computer and Communication Technology, Vol. (02) ,2013.
  33. Piyush Lotia, **M. R. Khan** "A review of various score normalization techniques for speaker identification system" International Journal of Advance in Engineering & Technology, Vol3,(2012):650-657.
  34. Piyush Lotia, **M. R. Khan** "A review on Text-independent speaker

- identification using Gaussian super vector SVM” International Journal of u- and e- service, science and technology, Vol5,2012.
35. Piyush Lotia, Kamal Mehta, **M. R. Khan** “Code separated text independent speaker identification system using GMM” International of Multimedia and Ubiquitous Engineering, Vol.(16),2011.
  36. Piyush Lotia, **M. R. Khan** “Multistage VQ based GMM for text independent speaker identification system” International Journal of soft computing and Engineering, Vol (11),2011.
  37. Piyush Lotia, **M. R. Khan** “Development of speech corpora for speaker recognition systems” I-manager’s Journal on Electrical Engineering, Vol. (03),2010.
  38. Piyush Lotia, Kamal Mehta, **M. R. Khan** “Text dependent speaker recognition system using vector quantization technique” I-manager’s Journal on Electrical Engineering, Vol.(03),2010.
  39. **M. R Khan** “Combined source and channel coding for AWGN channel-simulation” BSNL Journal of Telecommunications,(2007).
  40. **M. R Khan**, M.R. Khare “Design and description of 8.0 KBPS ACELP speech coding algorithm” BSNL Journal of Telecommunications,(2007):17-23.
  41. Vineeta Shukla, Richa Khetan, **M. R. Khan** “A sub-optimal, low search complexity, vector quantization (11-bit) of LSF parameters of speech” Journal of Ravishankar University, Vol.(20),(2007):13-18.
  42. **M. R. Khan**, G R Sinha, "Evolution of Digital Speech Coding for Telephone Speech Communication A Review", Acta Ciencia Indica. Vol. (XXXIIP).No.2,(2007).171-176.
  43. **M. R.Khan**, G R Sinha, “Half Hamming and Quarter Cosine Asymmetrical Window for LP Analysis for Speech Signal." Acta Ciencia Indica. Vol.(XXXI IIP),No.3,(2007)351-355.
  44. Horilal Yadav, V. Parinita, **M. R. Khan** “Design and Implementation of Two stage (10-Bit) Vector Quantization for LSF Parameters of Speech." Journal of Ravishankar University, Vol.(20),(2007):19-24.
  45. **M. R. Khan** “A reduced complexity, low delay, high quality, spectrally efficient algebraic code excited linear prediction (ACELP) speech coding algorithm” Journal of Ravishankar University, Vol.(20),(2007):1-12.
  46. **M. R. Khan**, M.R. Khare “A Reduced Complexity Two Stage Code book Vector Quantization of LSF parameters for Speech Coding." Chhattisgarh Journal of Science and Technology, Vol.(03&04),(2006-2007):21-28.

#### Recent Conferences:

1. Nitesh Kumar Sharma, Deepesh Kumar Gautam, M.R. Khan “Implementation of Encryption Technique for analysis of Image Transmission during COVID-19 Pandemic.” 12th International Conference on Computing, Communication and Networking Technologies (ICCCNT). IEEE. 2021. (Scopus)

2. Neha Shivhare, Dr. Shanti Rathod, **Dr. M. R Khan**, Aditi Rai, Sumit Kumar Sar, "Cognitive impairment: Dementia , A Review", National Conference on Innovations in Computation, Communication, Cybernetics and to Combat Current Challenges (I6C) 2020,Bhilai Institute of Technology, Durg (Chhattisgarh) on 20th November 2020.
3. Neha Shivhare, Dr. Shanti Rathod, **Dr. M. R Khan**, "Dementia detection using Bi-LSTM and 1D CNN Model", Springer International Conference on Machine Intelligent and Smart System, IPS college of Technology and Management on 24-25th Sept 2021(Book series of Springer 'Algorithm for Intelligent System')
4. Neha Shivhare, Dr. Shanti Rathod, **Dr. M. R Khan**, "Dementia Detection Using LSTM and GRU", 4th International e-conference on Frontiers in Computer and Electronics Engineering,19-20th Nov 2021 (WoS)
5. Neha Shivhare, Dr. Shanti Rathod, **Dr. M. R Khan**, "Automatic Speech analysis of Conversations for Dementia Detection Using LSTM and GRU",IEEE International Conference on Computational Intelligence and Computing Application 2021, GH Rasoni College of Engineering,26-27th Nov (IEEE xplore)
6. C. Pandey, P. K. Sethy, P. Biswas, S. K. Behera,**M. R. Khan**, "Quality Evaluation of Pomegranate Fruit using Image Processing Techniques," 2020 International Conference on Communication and Signal Processing (ICCSP), Chennai, India, 2020, pp. 0038-0040, doi: 10.1109/ICCSP48568.2020.9182232
7. Nitesh Kumar Sharma, Deepesh Kumar Gautam, **M. R. Khan** "Computer Vision based use of Robotics for Teaching" 4<sup>th</sup> IEEE International Conference on Electronics, Communication and Aerospace Technology (ICECA) 2020. (Scopus)
8. Nitesh Kumar Sharma, Deepesh Kumar Gautam, **M. R. Khan** "A Comparative Analysis on Multiplier"11<sup>th</sup> International Conference on Computing, Communication and Networking Technologies (ICCCNT).IEEE.2020.
9. Yogesh Kumar Sahu, Chanki Pandey, Preesat Biswas, **M. R. Khan**, Shanti Rathore "Minimum Time Delay and More Efficient Image Filtering Brain Tumour Detection with the help of MATLAB"International Conferences on Communication and Signal Processing (ICCSP).IEEE.2020.
10. Preesat Biswas, Chanki Pandey, Ashish Kumar Thakur, **M. R. Khan**, Shanti Rathore "Algorithm Design Simulation Performance Analysis of MIMO GMSK System for Radio Communication on AWGN Channel" International Conferences on Communication and Signal Processing (ICCSP).IEEE.2020.
11. Sharad Chandra Rajpoot, Prashant Singh Rajpoot, **M. R. Khan**" Electricity Pilferage, Fault Detection and their Isolation for Power Quality enhancement in Electrical Distribution System by espouse SDS with Smart Switching Control based on  $\mu$ PMU, IoT- LoRa technology." International Conferences on Communication and Signal Processing (ICCSP).IEEE.2020.

12. Preesat Biswas, Shanti Rathore, **M. R. Khan**, Prabira Kumar Sethy “A Novel Approach of Digital Communication using 256QAM and Raised Cosine Filter.”International Conferences on Communication and Signal Processing (ICCSP).IEEE.2020.
13. Nitesh Kumar Sharma, Shanti Rathore, **M. R. Khan** “Implementation of Coordinate Rotation Digital Computer (CORDIC) Processing Unit by Using of VLSI Technology” 8<sup>th</sup> International Conference on Recent Trends in Computing (ICRTC), Springer, 2021.
14. Nitesh Kumar Sharma, Shanti Rathore, **M. R. Khan** “A Comparative Analysis on Coordinate Rotation Digital Computer (CORDIC) Algorithm and Its use on Computer Vision Technology” First International Conference on Power, Control and Computing Technologies (ICPC2T).IEEE.2020.
15. Shanti Rathore, **M. R. Khan** “Enhance congestion control multipath routing with ANT optimization in mobile ad hoc network” International Conference on ICT in Business Industry and Government (ICTBIG).IEEE.2016.
16. Piyush Lotia, **M. R. Khan** “Text independent speaker identification system using VQ and GMM” International Conference on Electrical, Electronics, Signals, Communication and Optimization.2015.



2) Dr. R.H.Talwekar (HOD GEC, Raipur)

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**International Journals:**

- [1]“Design of high bandwidth charge pump with on chip loop filter for high performance phase locked loop in 180 nm CMOS technology”, Technology Today International Journal **Malaysia**, ISSN 2180-0987, 2 July-Aug 2010.
- [2]“Design of integer N frequency divider for high performance PLL using 180 nm in CMOS technology.” International Journal of Electronic Engineering Research ISSN 0975 – 6450, 2 589–596, 2010.
- [3] “Design of loop filter for high performance phase locked loop using 0.18um CMOS technology”, International J. of Multidiscipl. Research & Advcs. In Engg.(IJMRAE), ISSN 0975-7074, 2, (No. 2) 383-392, July 2010.
- [4] “A High-Speed, Low Power Consumption Positive Edge Triggered D Flip-Flop for High Speed Phase Frequency Detector in 180 nm CMOS Technology” International journal of VLSI Design & Communication Systems (**VLSICS**), ISSN 0976 – 1357.
- [5] “An Area Efficient, High Performance, Low Dead Zone, Phase Frequency Detector in 180 nm CMOS Technology for Phase Locked Loop System.” ACEEE Int. J. on Communication, Vol. 02, No. 03, Nov 2011.**Springer IDES**.
- [6]”Design of High Performance Phase locked loop for UHF band in 180 nm CMOS Technology” Research Journal of Applied Sciences, Engineering and Technology, 2040- 4(22): 4582-4590, 2012 ISSN: 2040-7467 © **Maxwell** Scientific Organization, 2012.**U.K. Scopus**
- [7]“Integer N frequency divider for high performance PLL using 180 nm CMOS Technology ISSN 0974-2204 Volume 3, Number 1 (2012), pp. 65-70 © International Research Publication House
- [8] “Design and Implementation of High- performance MAC Unit” International Journal of Scientific & Engineering Research, Volume 4, Issue 6, June-2013 52 ISSN 2229-5518 IJSER © 2013 <http://www.ijser.org>
- [9] “Complex architecture for AHB-APB interface to DMA controller using Verilog”, International Journal of Digital Application & Contemporary research Website: [www.ijdacr.com](http://www.ijdacr.com) (Volume 1, Issue 3, October, 2012 IJDACR ISSN: 2319-4863
- [10]” Design of Low Phase Noise VCO by 45 nm CMOS Technology” International Journal of Scientific & Engineering Research, Volume 4, Issue 6, June-2013 ,ISSN 2229-5518.
- [11] “Performance Analysis of Hybrid Optimization Technique for Segmentation of Medical Images”. International Journal of Computer science and Information Security” January 2017. Vol-15 issue 1 pp 39-45 Indexed in Thomson Reuters Web of Science, EBSCO,**Scopus, ProQuets**.

- [12] “HAAMR: Hybrid Ant-Colony Optimization and Markov Random Field For X-ray image Segmentation”. International Journal of Computer science and Information Security” January 2017. Vol-15 issue 1 pp 243-247. Indexed in Thomson Reuters Web of Science, EBSCO, **Scopus**, **ProQuest**.
- [13] “IMPLEMENTATION OF INDIAN SIGN LANGUAGE RECOGNITION SYSTEM USING SCALE INVARIANT FEATURE TRANSFORM International Journal of Computer Science and Information Security (IJCSIS), Vol. 15, No. 2, February 2017
- [14] “A High Data Rate Wireless system using STBC MIMO Technique to control microgrid in Smart Grid System for Remote Areas” published in “International journal on Recent and Innovation Trends in Computing and communication (IJRITCC), March 17, Volume 5, Issue 3, ISSN:2321-8169, pp:391-395.
- [15] “Review on progressive development of cmos imagers for visual prosthesis and new aspects” Journal of Advanced Research in Dynamical and Control Systems Vol. 9. Sp- 14 / 2017 JARDCS Special Issue On Environment, Engineering & Energy 1334
- [16] “Implementation of Devnagri (Marathi) Sign Language recognition system using scale invariant feature transform” International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, P- ISSN 2349-5138, Volume 5, Issue 3, December 2018.
- [17] “Feature Extraction and Matching for different Intensity values using scale invariant feature transform” Asian Journal of Convergence in Technology, ISSN No.:2350-1146, Volume 3, Issue 2, 15 April 2018.
- [18] A hybrid framework for segmentation of medical images using Adjusted ant colony optimization, Helix Journal ,Feb 2019, ESCI, Thomson Reuter.
- [19] Analysis of Discrete wavelet Transform for Denoising of Breast CT image Research & Reviews: Journal of Medical Science and Technology. 2018; 7(1): 27–31p. Dec 2018
- [20] “Solar Energy & its Status in India International Journal of Research in Advent Technology UGC Approved, Issue3, ISSN 2321-9637, pp 245-250 March 2018
- [21] Clocking scheme, Reset noise analysis and reduction technique for CMOS Image Sensors utilized in Subretinal Implant, **IEEE**, 2019, Scopus
- [22] Simulation and analysis of a novel On-chip Clock extraction and reset noise reduction scheme for CMOS imagers in a Subretinal Implant System, SCI journal Taylor and Francis under review 2019
- [23] Cause-Effect study of Noise sources and consequent gradual developments of Remedial techniques for CMOS Image Sensors SCI journal Taylor and Francis under review 2019

### **International Conferences:**

- [1] "A Low power -10Ps Dead zone phase frequency detector in 0.18um CMOS technology for phase locked loop system", ICCET **WASET 2010 Singapore**, Aug 25-27, 2010.
- [2] "Design of high gain, high bandwidth OPAMP for reduction of mismatch currents in CPPLL 180 nm CMOS technology", ICCET **WASET 2010 Singapore**, Aug 25-27, 2010.
- [3] "Reduction of Reverse Leakage Current by ULP Diode Based MTCMOS Technique for Multiplier.( ICCCS-2016, International Conference on Communication and Computing Systems **Taylors and Fancis**.
- [4] "Enhanced Ground Bounce Noise Reduction in Low Leakage CMOS Multiplier Cell", (International Conference on Research Advances in Integrated Navigation Systems will be held in Doddaballapur, Bengaluru, Karnataka, India, May 2016 and will be published in **IEEE Xplorer**.
- [5] "Control Strategies in Droop Control :A Review" in **IEEE** International Conference on Innovations in Control, Communication and Information System (ICICCI-2017) on 12 and 13th August 2017 at Delhi -NCR, Greater Noida, India.
- [6] "Implementation of a Novel 2-stage DFT structure for CMOS Pixel Sensors utilizing on-chip CP-PLL clock (For Retinal Implant System) " **IEEE** International Conference on Microelectronic Devices Circuits & Systems, to be held in VIT University, Vellore, in the duration of 10th to 12th august 2017. **IEEE Xplorer**
- [7] "Control Strategies in Droop Controller of Microgrid : A survey" ICSEDPS-18 during 12-13th June 2018 at G. H. raisoni College of Engineering , Nagpur (**IEEE** Conference) June 2018
- [8] Clocking scheme, Reset noise analysis and reduction technique for CMOS Image Sensors utilized in Subretinal Implant th In 5 International Conference for Convergence in Technology 2019 - 31 March 2019.(**IEEE**)

### **National Journals:**

- 1] Designing practical active low pass filter by MATLAB (L E Journal ISSN 0972-6055)
- 2] Designing of all active filters with GUI by MATLAB (L E Journal ISSN 0972-6055)
- 3] An intelligent LCD display system using M80C51 (L E Journal ISSN 0972-6055)
- 4] Designing embedded system for controlling induction motor using AT89c51 (L E Journal ISSN 0972-6055)
- 5] Stability Improvement of PLL by Setting Capacitor in loop filter using CMOS Tech. (L E Journal ISSN 0972-6055)
- 6] "Design of high speed glitch free charge pump using 180 nm CMOS technology", L.E, Journal of India, ISSN 0972-6055, 33, 10 Mar -2010.
- 7] "Stability improvement in loop filter of PLL by CMOS technology", L .E .Journal of India, ISSN 0972-6055, 26, 8 (No 2) Jun 2008.

## Research Publications By other faculty Members

S.No	Name of Faculty	Name of Authors (paper wise)	Topic of Paper	Published In	Publication Month/Year	DOI
1.	Dr. A. K. Kushwaha	Ashok Kumar, Ajay Kumar Kushwaha, Sajal K. Paul	Electronically Tunable Mixed Mode Quadrature Oscillator Using DX-MOCCII	Journal of Circuits, Systems and Computers (World Scientific)	Dec 2020	<a href="http://dx.doi.org/10.1142/S0218126621500067">http://dx.doi.org/10.1142/S0218126621500067</a>
2.	Dr. A. K. Kushwaha	Ajay Kumar Kushwaha, Ashok Kumar, PrakashPareek	Current Mode and Voltage Mode Third Order Sinusoidal Oscillator using CCDDCCTA	Nanoscience& Nanotechnology-Asia(Bentham Science) (Scopus Indexed Journal).	July 2019	<a href="https://doi.org/10.2174/2210681209666190820102339">https://doi.org/10.2174/2210681209666190820102339</a>
3.	Dr. A.K.Kushwaha	A.K.Kushwaha, vikas Kumar	A Novel Approach for Design 7:3 and 5:3 Compressors	<u>Advances in Intelligent Systems and Computing</u> (Springer) (Scopus Indexed Journal).	30 June 2020	<a href="https://doi.org/10.1007/978-981-15-4032-5_9">https://doi.org/10.1007/978-981-15-4032-5_9</a>
4.	Dr. Y.K. Upadhyaya	Dr. Y.K. Upadhyaya, Dr. A.K.Kushwaha	Minimize Average Power Ratio (PR) in OFDM using Tone Reservation Method	<u>Advances in Intelligent Systems and Computing</u> (Springer) (Scopus Indexed Journal).	30 June 2020	<a href="https://doi.org/10.1007/978-981-15-4032-5_12">https://doi.org/10.1007/978-981-15-4032-5_12</a>
5.	Dr. Y.K. Upadhyaya	Dr. Y. K. Upadhyaya, ChetnaSinha	DNA Cryptography-based Data Transmission	Journal of Network Security	Jan 2020	ISSN: 2395-6739 (Online)
6.	Dr. Ajay Kumar Kushwaha	Ajay Kumar Kushwaha, Ashok kumar, PrakashPareek	Third Order Sinusoidal Oscillator employing single CCDDCCTA	2018, IEEE Electron Device Kolkata Conference (2018 IEEE EDKCON) pp. 379-382, 2018.	25 July 2019	10.1109/EDKCON.2018.8770429
7.	Dr. Ajay Kumar Kushwaha	Ashok kumar, Ajay Kumar Kushwaha, Nikhil Chander	Current-mode SIMO universal filter realization using dual-X multi output current conveyor	TENCON 2019 - 2019 IEEE Region 10 Conference (TENCON), pp. 2179-2183, 2019	12Dec 2019	10.1109/TENCON.2019.8929631

<b>8.</b>	Dr. Ajay Kumar Kushwaha	PrakashPareek , Ravi Ranjan, Ajay Kumar Kushwaha	Performance comparison of tin-based group IV SQWIP and MQWIP in dark conditions	Nanophotonics VIII, International Society for Optics and Photonics, vol. 11345, pp. 113452A-1 to 113452A-8, 2020	1 April-2020	10.1117/12.2555449
<b>9.</b>	Dr. Y.K. Upadhyaya	Y.K. Upadhyaya, MohdHasan	Energy Efficient Robust Pre-Charge Sense Amplifier	2019 International Conference on Electrical, Electronics and Computer Engineering (UPCON)pp. 1-5	6 Feb 2020	10.1109/UPCON47278.2019.8980146
<b>10.</b>	Dr. Ajay Kumar Kushwaha	Ajay Kumar Kushwaha, Ashok Kumar	Sinusoidal Oscillator Realization Using Band Pass Filter.	Journal of The Institution of Engineers (India) : Series B, (Springer), 2019. (Scopus Indexed Journal).	17 May 2019	10.1007/s40031-019-0008-w
<b>11.</b>	Dr. Y.K. Upadhyaya	Paritosh Sharma, Dr. Y. K. Upadhyaya, Kshetra Singh	Design of Ultra Low-Power Robust SRAM Cell	A Journal of Nanotechnology and its Application	May 2019	SSN:0973-418X (Online)