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RESEARCH AREAS

- [1] Signal processing
- [2] Power System Reliability
- [3] Multirate systems
- [4] Renewable Sources of Electrical Energy
- [5] Reliability Analysis
- [6] Performance and Reliability Aspects in Engineering Systems

[A]. RESEARCH PUBLICATION

WEB OF SCIENCE & SCIE INDEXED JOURNALS

- (1) Majid Ali, Mohsin Ali Koondhar, Jyotsna Ogale, Ahmed Ali, Baseem Khan (2023), "Intelligent Hybrid Microgrid Energy Source and Grid Integration Using Microcontrollers", Special Issue on New Models, Methods, and Critical Technologies for Hybrid Renewable Energy Systems (VSI-hres), **Computers & Electrical Engineering (WoS & SCIE)**, Elsevier, **Impact Factor: 4.152**, Accepted for publication, Publication: December 2023.
- (2) Shishir Dixit, Pushpendra Singh, Jyotsna Ogale, Praveen Bansal, Yashwant Sawle (2023), "Energy Management in Microgrids with Renewable Energy Sources and Demand Response Employing Differential Evolution", Special Issue on New Models, Methods, and Critical Technologies for Hybrid Renewable Energy Systems (VSI-hres), **Computers & Electrical Engineering (WoS & SCIE)**, Elsevier, **Impact Factor: 4.152**, Accepted for publication, Publication: December 2023.
- (3) Bhoori Singh, Avdhesh Sharma, Om Prakash Mahela, Akhil Ranjan Garg, Baseem Khan, Jyotsna Ogale and Carlos Uc Rios (2023), "A Brief Review of Power System Security and Security Constraints Based Optimal Power Flow", Special Issue on "Local and Distribution Electricity Markets for Sustainable Energy Management", **IET Generation, Transmission & Distribution (WoS & SCIE)**, IET (UK), **Impact Factor: 2.503**, Accepted for publication, Publication Date: November 2023.
- (4) Majid Ali, Mohsin Ali Koondhar, Jyotsna Ogale, Ahmed Ali, Baseem Khan (2023), "Fixed Head Hydrothermal Scheduling Considering Uncertainty of Load Demand and Renewable Energy Sources", **IET Generation, Transmission & Distribution (WoS & SCIE)**, IET (UK), **Impact Factor: 2.503**, Accepted for publication, Publication Date : November 2023.
- (5) Pampa Sinha,, Kaushik Paul, Sayanti Chatterjee,, Fausto Pedro García Márquez,, Jyotsna Ogale,, Ahmed Ali, Baseem Khan (2023), "Cross-Country High Impedance Fault Diagnosis Scheme for Unbalanced Distribution Network Employing Detrended Cross-Correlation", **IET Generation, Transmission & Distribution (WoS & SCIE)**, IET (UK), **Impact Factor: 2.503**, Accepted for publication, Publication Date : November 2023.

UGC Approved

- (1) Sakshi Jain, Jyotsna V. Ogale, "Contribution of Barker and Nested Barker code in CDMA Technology" International Journal of Management Technology and Engineering, Volume-8, Issue-10, Page-593-600, November-2018, ISSN:-2249-7455 (UGC Approved).
- (2) Akansha Parihar, Jyotsna V. Ogale, "Improved fast block LMS adaptive algorithm using LabVIEW" International Journal of Management Technology and Engineering. Volume - 8, Issue -10, Page-593-600, October-2018, ISSN:-2249-7455 (UGC Approved).
- (3) Akash Prajapati, Jyotsna Ogale, "Codes and its Impact on the Performance of the CDMA System" International Journal of Modern Electronics and Communication Engineering (IJMECE), Volume-6, Issue-4, August-2018, ISSN: 2321-2152(UGC Approved).

Others

- (1) Gaurav Lodhwal, Jyotsna Ogale, "Biomedical Image Fusion for Brain Cancer Detection" International Journal of Advanced Research in Electronics and Communication Engineering, Volume-07, Issue-01, January-2018, ISSN: 2278 – 909X (Peer Reviewed).
- (2) Divya Jain, Jyotsna Ogale, "A Modified Method for Sound Compression Using Intrinsic Mode Functions" International Journal of Modern Electronics and Communication Engineering (IJMECE), Volume-5, Issue-1, Page(s): 97-102, January-2017, ISSN: 2321-2152 (Peer Reviewed).
- (3) Vikash Panthi, Jyotsna Ogale, "Image Denoising Technique by Using Various Filters" International Journal of Advanced Research in Computer and Communication Engineering, Volume-05, Issue-11, November-2016, ISSN : 2319 5940 (Peer Reviewed).
- (4) Ram Kumar Panthi, Jyotsna Ogale, "Empirical Mode Decomposition for Speech Synthesis" International Journal of Advanced Research in

Computer and Communication Engineering, Volume-05, Issue-12, Page(s): 288-294, December-2016 ISSN : 2319 5940 (Peer Reviewed).

- (5) Sandhaya Shakya, Jyotsna Ogale, "An optimized Design of Uniform-Band and Octave –Band Filter bank using Variable window function" International Journal of Industrial Electronics and Electrical Engineering, Volume-2, Issue-12. December-2014, ISSN: 2347-6982(Peer Reviewed).
- (6) Sachin Bhajji, Jyotsna Ogale, "Sub band coding of ECG signal Via Quantized coefficient QMF bank". International Journal of Engineering Trends and Technology (IJETT), Volume-14, ISSN: 2231-5381. July-2014 Sachin Bhajji, Jyotsna Ogale, "Sub band coding of ECG signal Via Quantized coefficient QMF bank". International Journal of Engineering Trends and Technology (IJETT), Volume-14, ISSN: 2231-5381, July-2014 (Peer Reviewed).
- (7) Jyotsna Ogale, Sandhaya Shakya, "Design and Analysis of Optimized Octave-Band Filter Bank with Low Complexity", International Journal of Advanced Research in Computer Science and Software Engineering, Volume-4, Issue-7, ISSN: 2277 -128X. July 2014(Peer Reviewed).
- (8) Jyotsna Ogale, Alok Jain, "Design of Multi-Channel Non-Uniform Filter Bank" International Journal of Scientific Research, Volume- 2, Issue-7, Page(s):149-152, ISSN: 2277-8179. July -2013(Peer Reviewed).
- (9) Jyotsna Ogale, Alok Jain, "Design of Transmultiplexer via Spline Function and New Cosh Window" International Journal of Scientific and Research Publications, Volume- 3, Issue-6, ISSN: 2250-3153, June -2013(Peer Reviewed).
- (10) Jyotsna Ogale, Alok Jain, "IFIR Filters with Improved Efficiency for Filter Banks and Trans Multiplexers" CiiT International Journal of Digital Signal Processing, Volume-2, Issue- 6, ISSN: 0974 – 9594. June -2013(Peer Reviewed).
- (11) Jyotsna Ogale, Alok Jain, "Design of Cosine Modulated Filter Bank using Computationally Efficient Multiplier-less FIR Filters" International Journal of Engineering and Innovative Technology (IJEIT), Volume-2, Issue- 10, ISSN: 2277-3754. April -2013(Peer Reviewed).

- (12) Jyotsna Ogale, Alok Jain, "Cosine Modulated Non-Uniform Filter Bank with Improved Computational Efficiency". I.J.Image, Graphics and Signal Processing, 2012, Volume-2, Page(s):1-8, ISSN: 2074-9082. March- 2012(Peer Reviewed).
- (13) Jyotsna Ogale, Alok Jain, "Cosine Modulated Non-Uniform Filter Bank" Journal of Signal and Information Processing, Volume-2, Page(s):178-183, ISSN: 2159-4465. February-2011(Peer Reviewed).

International Conference

- (1) Jyotsna Ogale, Alok Jain, "Design of an M-Channel Cosine Modulated Filter Bank by New Cosh Window Based FIR Filters" International conference, World Academy of Science, Engineering & Technology; Issue -50, pp-239, February-2011.
- (2) Sandhaya Shakya, Jyotsna Ogale, "An Optimized Design of Uniform-Band and Octave-Band Filter Bank using variable window function." Proceedings of 7th IRF International Conference, 12th Goa, India, ISBN: 978-93-84209-57-5, October- 2014.

[B] Intellectual Property / Patents

(i) Patent Journal Publication {01}

[1] Sakshi Sarathe, Sagar Tapdiya, Gaurav Dwivedi, Jyotsna V. Ogale, Vinay Kumar Tatikayala, Pratibha M. Deshmukh (2023), "Multiple Slope Solar Dryer and Solar Still," The Patent Office Journal, Issue No.: 11/2023, Publication Date: Friday, 17.03.2023, **Indian Patent** (Design), Patent Application Number: **202321014565A**; **Application Date: March 03, 2023.**

(ii) Patent Granted {02}

[1] Riya Chib, Shishir Dixit, Jyotsna V. Ogale, Jaya Depti Lal, Geeta Shakya, Basant Kumar Yadav, Vinay Kumar Tatikayala (2022), "Safety Jacket Integrated with Safety Belt Based on Artificial Intelligence",

Indian Patent, Indian Government, Design Patent, **Patent Number: 372911-001**, Issue Date : **January 10, 2023**, Grant Date : 20.10.2022.

[2] Veerendra Dakulagi, Bidar, Shishir Dixit, Kim Yeap, Perak Kampar, Nagaraj, Umesh Bargor, Jyotsna Ogale, Mallekuppa Chandraiah Reddy Parmeshwara, Shimoga, Rekhta Rang Nathan, Kavya Shivshankar (2022), "A System for Classifying Multiple Signals for Direction of Arrival Estimation", **German Patent**, Germany Government, Design Patent, **Patent Number: 202022105574**, Issue Date: **October 01, 2022**. Grant Date: 20.10.2022.

[C] Book Chapters {03}

- Aanchal Verma, Jyotsna Ogale, R.K. Saket, Stuart Galloway **(2023)**, "Modern Aspects of Probabilistic Distributions for Reliability Evaluation of Engineering System", Book on Reliability Analysis of Modern Power Systems, **WILEY-IEEE** Press (USA), Publication: December 2023 (Accepted).
- Rahul Agrawal, Kumari Sarita, Jyotsna Ogale, R.K. Saket, Stuart Galloway **(2023)**, "Reliability and Mean Life Assessment of Solar Panel by Cooling", Book on Reliability Analysis of Modern Power Systems, **WILEY-IEEE** Press (USA), Publication: December 2023 (Accepted).
- Laxman Chaudhary, Kumari Sarita, Jyotsna Ogale, R.K. Saket, Stuart Galloway **(2023)**, "Reliability Assessment of Different Topologies in Photovoltaic System", Book on Reliability Analysis of Modern Power Systems, **WILEY-IEEE** Press (USA), Publication: December 2023 (Accepted).

