Prof. Narendra Singh

Professor & HOD

Education: B. Tech, M. Tech, PhD

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Areas of Interest: Digital Signal Processing, Multirate Signal Processing, Speech Processing & Wireless Communication

Brief Profile:

Dr. Narendra Singh did his Ph.D. from Department of Electronics and Communication Engineering, Jaypee University of Engineering & Technology, Guna in year 2012 with the specialization in multirate signal processing and M.Tech from Motilal Nehru National Institute of Engineering & Technology (M.N.N.I.T), Allahabad (Deemed University) with specialization in Digital systems. Dr. Singh has completed his graduation with Bachelor of Technology degree in Electronics and Instrumentation Engineering from Bundelkhand Institute of Engineering & Technology (B.I.E.T.), Jhansi. He has sixteen years of teaching experience for PG & UG courses of Electronics and Communication Engineering and published many research papers in reputed international journals and conferences including SCI indexed journals. Dr. Singh is also an editorial board member of the JUET Research Journal of Science and Technology since Aug, 2015 and Journal of Electrical and Electronics Engineering since Nov, 2020.

Research Guidance Scenario

Ph.D. Guided

[1] Jitendra Raghuvanshi (143002), "Application of Soft-Computing in Digital Signal Processing" , 2021.

[2] Mahesh Kumar Singh (143003), "Text-Dependent Speaker Identification under Disguised Environment using MFCC Feature Extraction and Classification Techniques" , 2020.

[3] Mahendra Singh Yadav (153601), "Nano-structured Materials for Energy Storage Devices" , 2019.

[4] Deepak Sharma (10P3102), "Studies on Image Encryption, Compression and Watermarking using Multiple Parameter Discrete Fractional Fourier Transform" 2017.

[5] Khushboo Pachori (123004), "Performance Augmentation of MIMO-OFDM System in Soft-Computing Frameworks" , 2016.

[6] Sunil Dutt Sharma (10P3103), "Characterization of Periodicities in DNA Sequences using Signal processing" , 2015.

Ph.D. on going

[1] Manoj Kumar (183A001), "Multi-carrier Communication" .

[2] Vikas Misra (203A003), "Window Based Filter Design"

M.Tech: Completed - 06

[1] Miss Ankita Sharma, "Image Compression using FRFT" , 2018.

[2] Miss Manju Saini , " Digital watermarking using Fractional Fourier Transform" , 2017

[3] Miss Priti Tripathi, "Design of Trans-multiplexer using WCLS method and its application in OFDM" 2016.

[4] Sushil Kumar, "Performance analysis of OFDM system using trans-multiplexer" 2014.

[5] Saurabh Khandelwal, "Trans-multiplexer in OFDM" , 2013

[6] Piyush Jain, "An optimized near perfect trans-multiplexer" 2012.

Award and Achievements

[1] Best Paper award in International Conference on Information System Design and Intelligent Applications, INDIA-2016) organized at Anil Neerukonda Institute of technology and Sciences Springer AISC series Visakhapatnam, January, 2016.

Publication@JUET

Book Chapter

[1] Khushboo Pachori, Amit Mishra, Pachauri, R., and Singh, N., Envelope Fluctuation Reduction for WiMAX MIMO-OFDM signals using Adaptive Network Fuzzy Inference Systems, Information Systems Design and Intelligent Applications, (Springer), pp 19-26, February,2016.

Publication

[1] Jitendra Raghuwanshi, Amit Mishra, Narendra Singh "Combined functional link adaptive filter for nonlinear acoustic echo cancellation" , Analog Integrated Circuits and Signal Processing, Vol.105. no.2, pp.249-262, September 2020(Springer publisher). (Impact factor: 0.925) (SCI Index)

[2] Manoj Kumar, Manish Patidar and Narendra Singh, "BER sensitivity of OFDM system to carrier frequency offset" , International conference on Mathematical Modeling, Applied Analysis and Computation(ICMMAAC-2020), JECRC University, Jaipur, August 2020.

[3] Jitendra Raghuwanshi, Amit Mishra, Narendra Singh, "The Wavelet Transform-Domain Adaptive Filter for Nonlinear Acoustic Echo Cancellation" Multimedia Tools and Applications" , DOI: 10.1007/s11042-020-09218-5, June 2020 (Springer publisher). (Impact factor: 1.541) (SCI Index)

[4] Mahendra Singh Yadav, Narendra Singh and Santosh M. Bobade " Electrochemical analysis of CuO-AC based nano composite for super capacitor electrode application", Journal of Materials Today: Proceedings, pp 366-374, , March 2020(Elsevier publisher).

[5] Mahesh K. Singh, A.K. Singh, Narendra Singh, "Multimedia utilization of non-computerized disguised voice and acoustic similarity measurement" , Multimedia Tools and Applications, Vol. 78, no. 24, pp. 1-17, December 2019 (Springer publisher). (Impact factor: 1.541) (SCI Index).

[6] Manoj Kumar, Ashutosh Pandey, Manish Patidar and Narendra Singh, " A survey paper on ISI and PAPR reduction techniques in OFDM" International conference on Recent Innovations in Engineering, Science and Management(ICRIESM-2019), KNGD, Moradabad, April, 2019.

[7] Narendra Singh and Deepak Sharma, " Recent Developments in QMF,TMUX with their application in OFDM " International conference on Recent Innovations in Engineering, Science and Management(ICRIESM-2019), KNGD, Moradabad, April, 2019.

[8] Mahesh K. Singh, Narendra Singh, A.K. Singh, "Speakers voice characteristics and Similarity measurement using Euclidean distances" IEEE conference on Signal Processing and Communication(ICSC-2019), JIIT, Noida, March 2019.

[9] Mahendra Singh Yadav, Narendra Singh and Santosh M. Bobade, "Zinc Oxide Nano particles and Activated Charcoal Based Nano composite Electrode for Super capacitor Application" , Ionics, Ionics(International Journal of Ionics The Science and Technology of Ionic Motion), vol. 8, no. 1, pp. 416-420, November 2018(Springer publisher). (Impact factor: 2.394) (SCI Index)

[10] Mahesh K. Singh, A.K. Singh, Narendra Singh "Multimedia analysis for disguised voice and Classification efficiency" , Multimedia Tools and Applications, Springer journal. pp. 1-17, October, 2018(Springer publisher). (Impact factor: 1.541) (SCI Index).

[11] Mahesh Kumar Singh, Ashutosh Kumar Singh & Narendra Singh, "Acoustic comparison of electronics distinguished voice using different semitones" , International Journal of Engineering and Technology , vol.118, No. 14, pp. 241-246, February 2018(Science publisher). (SCOPUS Index)

[12] Mahesh K. Singh, A.K. Singh, Narendra Singh "Disguised voice with fast and slow speech and its acoustic analysis" , International Journal of Pure and Applied Mathematics, vol. 11 no. 14, pp. 241-246.January 2018(Academic publisher), (SCOPUS Index)

[13] Mahendra Singh Yadav, Narendra Singh and Anuj Kumar, "Synthesis and characterization of zinc oxide nano particles and activated charcoal based nano composite for super capacitor electrode application, Journal of Materials Science: Materials in Electronics, vol. no. 29(8): pp. 6853-6869, January 2018(Springer publisher). (Impact factor: 2.324),) (SCI Index)

[14] Deepak Sharma, Rajiv Saxena, Narendra Singh, "Dual Domain Robust Watermarking Scheme Using Random DFRFT and Least Significant Bit Technique" , Multimedia Tools and Applications, vol. 76, issue-3, pp. 3921-3942, November 2016(Springer publisher).(Impact Factor: 1.541) (SCI Index)

[15] Deepak Sharma, Rajiv Saxena, Narendra Singh, "Better Performance for Compression Scheme using Multiple Parameter Discrete Fractional Fourier Transform" , International Journal of Advanced Information Science and Technology, vol. 50, no.50, pp.20-25, June 2016(Science and Engineering Research Support Society publisher). (SCOPUS Index)

[16] Deepak Sharma, Rajiv Saxena, Narendra Singh, "Hybrid Encryption-Compression Scheme Based on Multiple Parameter Discrete Fractional Fourier Transform with Eigen Vector Decomposition Algorithm" , International Journal of Computer Network and Information Security, vol. 6, no. 10 , pp. 1-12, September 2014(MECS publisher).

[17] Deepak Sharma, Rajiv Saxena, Narendra Singh, " Robust Watermarking Against Geometric Attacks using Multiple Parameter Discrete Fractional Fourier Transform and Least Significant Bit Technique" , International Journal of Security and Its Applications, vol. 8 , no.5 , pp. 439-456, September 2014.(SERSC publisher). (E-SCI Index)

[18] Deepak Sharma, Rajiv Saxena, Narendra Singh, " Sharma D., Saxena R. and Singh, N. (2014b), "Image Compression based on Multiple Parameter Discrete Fractional Fourier Transform for Satellite and Medical Images" , International Journal of Signal Processing, Image Processing and Pattern Recognition, vol. 7, no. 3, pp. 453-474, June 2014(SERSC publisher).

[19] Deepak Sharma, Rajiv Saxena, Narendra Singh, " A Novel Image Encryption Scheme based on Multiple Parameter Discrete Fractional Fourier Transform" , International Journal of Computer Applications, vol. 93, no. 2, pp. 9-16, May 2014(RS publisher).

[20] Narendra Singh, Anuj Garg , Ankit Saxena and Anupama Arora, "Implementation of optimized trans-multiplexer using combinational window functions," International Journal of Advance Research, vol.1.no.8,pp.1-5,August 2013(SERSC publisher).(Impact factor: 1.659)

[21] Narendra Singh and R. Saxena, "A novel window family and its application in NPR trans-multiplexer," Electrical & Electronics Engineering International Journal of Scientific & Academic Publishing USA, vol.2, no.6, pp. 342-350, December 2012(Scientific & academic publisher).

[22] Narendra Singh, Sandeep Kumar arya, Saurabh Khandelwal and Hemdutt Joshi, "Cosine modulated filter-bank trans-multiplexer using Kaiser window," International Journal of Electronics and Communication Engineering & Technology (IJECET), vol.4, no.2, pp.225-228, April 2012(IAEME publisher).(Impact factor:3.5930)

[23] Narendra Singh and R. Saxena, "Development of new combinational window family with its application in the design of cosine modulated filter bank with better performance," Mediterranean Journal of Electronics and Communications, vol. 8, no. 1, pp. 330-339, February 2012(Sheffield : Soft Motor publisher)

[24] Narendra Singh and R. Saxena, "Synthesis of QMF bank using a new window family" , International Journal of Signal Processing, Image Processing and Pattern Recognition, vol. 4, no. 4, pp. 39-50, December 2011(SERSC publisher).

[25] Narendra Singh and R. Saxena, "Parzen-Cos6 (πt) combinational window family based QMF bank," in the proceeding of IEEE conference on Signal Processing and Real Time Operating System (SPRTS), HBTI, Kanpur, March 2011.

[26] Narendra Singh and Ravi Kumar, "Design and analysis of four hole coupled micro strip directional coupler" , in the proceeding of National conference on Communication systems and networking (CSN-2008), JIET Guna, pp.40-43, March 2008.