Naimur Rahman Kidwai, Ph.D.
Professor, Department of Electronics & Communication Engineering, Faculty of Engineering & IT, Integral University, Lucknow
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(Google Scholar Citation, |Orcid Id,| Scopus, |Web Of Science, |Research gate, |linked in)

PROFILE

Prof N. R. Kidwai is currently Professor in the Electronics & Communication Engineering department at Integral University, Lucknow.
His research focuses on image compression, segmentation and renewable energy.

RESEARCH INTEREST:
Image Compression & Segmentation
Renewable Energy
Machine Learning
Energy Audit & Energy Management

SUMMARY OF RESEARCH ACCOMPLISHMENT:
PhD Research: Developed the multiple compression algorithms for the grayscale images and published the result in SCIE index journals including two IEEE journal publication.
PhD Supervision: Successfully supervised one PhD student, who completed theses on the VLSI system.
Research Publications: Published several research papers in high-impact journals related to multimedia technology (SCIE = 05 ; Scopus = 16).
Collaborative Research: Engaged in interdisciplinary research collaborations with the other academic institutes and industry.

PROFESSIONAL MEMBERSHIP:
Life Member, ISTE (Indian Society for Technical Education) [LM 52889]
Member, IAENG (International Association of Engineers) [105645]
Life Member, Instrumentation Society of India (ISOI)

COURSE TAUGHT:

- Signals & Systems
- Digital communication
- Electronic measurement & Instrumentation
- Wireless communication
- Analog communication System
- Microwave Engineering
- Electromagnetic Field theory
- Project Finance

- Solar Energy & Entrepreneurship Finance Management

ADMINISTRATIVE/DEPARTMENTAL RESPONSIBILTY

- Dy. Director IQAC since Aug 2019 (University achievement NAAC A+ accreditation valid upto May 2028 ; NIRF 2024 University 101-150 Rank band ; WURI 2024 Global Top 300 Innovative Universities rank 283)
- NAAC Assessor since Dec 2021.
- Lead the project for development and university wide deployment of LMS (ILI) in July 2020.
- Strengthened Outcome based Education implementation ☐ Coordinator ILI (Integral Learning initiative) LMS for online and blended learning since July 2020.
- HoD ECE (28 Jan 2021-24 Jan 2021) and 26 Aug 2023 -21 Aug 2024.
- Conducted two runs of 8 week Online FDP on Courseware creation using Moodle for Outcome based Education in session 2019-20

STUDENTS SUPERVISION

Doctoral Supervision : 07 (Awarded : 01 ; Ongoing : 04)

S. No	Name	Enrollment	Title	Status
1	Mohd Ahmer		Memristor in adaptive VLSI system design	Awarded (Co-Supervisor)
2	Tanay Jaiswal	1901007	A Module-based Routing Protocol for Mobile Ad hoc Networks (MANET).	Ongoing (Supervisor)
3	Anshu Khare	2301049	Disease detection of a plant leaf using deep learning techniques	Ongoing (Supervisor)
4	Rajesh	2301110	Wavelet Transform base coding algorithm for hyperspectral images	Ongoing (Co-Supervisor)
5	Meena Kumari	2301057	Development of enhancing crop yield using machine learning and IoT	Ongoing (Co-Supervisor)

M. Tech Supervision : 10 (Awarded : 10)

S. No	Name	Enrollment	Title	Status
1	A. Maurya		Electronically Tunable Active-C Current-mode Universal Filter CCCII & OTA	Awarded
2	Vineeta Kumari		Low Complexity Viterbi Decoder by Using Trellis Structure	Awarded
3	F. Khursheed		Comparative Study of RFID Using SISO and MIMO	Awarded
4	Mohd Ahmer		Design of CORDIC Hardware Efficient Shift-and-Add Algorithm	Awarded
5	Imroz Alam		I Clock Period Minimization Through Retiming Technique	Awarded
6	Mohd Asif Ali		Face recognition system	Awarded
7	Shobhraj		Fingerprint Recognition System	Awarded
8	Farha		Analysis of SPIHT and its low memory versions	Awarded
9	Aradhna Yadav		Image enhancement with brightness preserving Algorithm using Fuzzy Statistics Based Contrast Equalization	Awarded
10	M. Chandra		Multiple Description Coding Of HighDefinition Image	Awarded

PUBLISHED/ACCEPTED SCI/SCOPUS RESEARCH PAPERS

- Bajpai S, Kidwai N. R., (2024), Fractional wavelet filter based low memory coding for hyperspectral image sensors, Multimedia Tools and Applications (Impact factor: 3.6), Vol 83, pp. 26281–26306, https://doi.org/10.1007/s11042-023-16528-x

- Jaiswal T., Kidwai N. R., (2022), MANETs: Challenges and Future Research Scope, International Journal of Engineering and Advanced Technology (IJEAT), Vol 12, Issue 2, pp. 109–113, ISSN: 2249-8958 (Online),

- Bajpai S, Kidwai N. R., Singh H.V., Singh A.K., (2022), A low complexity hyperspectral image compression through 3D set partitioned embedded zero block coding, Multimedia Tools and Applications (Impact factor: 3.6), Vol 81, issue 1, pp. 841–872, Online ISSN: 1573-7721

- Ahmar M., Kidwai N. R.Yasin. M.Y.,(2021), Memristor emulation and analog application using differential difference current conveyor of CC-II in CMOS technology, Materials Today: Proceedings(Scopus Indexed), in press, https://doi.org/10.1016/j.matpr.2021.05.260

- Ahmar M., Kidwai N. R. Yasin. M.Y., (2021), A novel memristor emulator design and universal biquad filter application using second generation high swing differential current conveyor transconductance amplifier in 130 nm CMOS process, Materials Today: Proceedings(Scopus Indexed), in press, https://doi.org/10.1016/j.matpr.2021.05.065

- Pandey S, Saeed S.H., Kidwai N. R., (2020), Simulation and optimization of genetic algorithm-artificial neural network based air quality estimator, Indonesian Journal of Electrical Engineering and Computer Science (Scopus Indexed), Vol 19, issue 2, pp. 775-783, ISSN: 2502-4752

- Bajpai S, Singh H.V., Kidwai N. R., (2019), 3D Modified Wavelet Block Tree Coding for Hyperspectral Images, Indonesian Journal of Electrical Engineering and Computer Science (Scopus Indexed), Vol 15, issue 2, pp. 1001-1008, ISSN: 2502-4752

- Bajpai S, Kidwai N. R., Singh H.V., Singh A.K., (2019), 3D Wavelet Block Tree Coding for Hyperspectral Images, International Journal of Innovative Technology and Exploring Engineering (Scopus Indexed), Vol 8, issue 6C, pp. 64–68, ISSN: 2278-2075 Bajpai S, Kidwai N. R., Singh H.V., Singh A.K., (2019), Low memory block tree coding for hyperspectral images, Multimedia Tools and Applications Springer (Impact factor: 3.6), Vol 78, issue 19, pp. 27193–27209, Online ISSN: 1573-7721

- Bajpai S, Kidwai N. R., (2018), Government's Effort in Control Engineering Education in India, Comparative Professional Pedagogy DE GRUYTER Online, Vol 8, issue 1, pp. 75-83, ISSN: 2353-9518

- Bajpai S, Kidwai N.R., (2017),Renewable Energy Education in India, Comparative Professional Pedagogy DE GRUYTER Online, Vol 7, issue 4, pp. 103-113, ISSN: 2353-9518

- Kumar S., Usmani T., Prakash S., Saeed S. H., Kidwai N.R., (2017),Encoder Optimization using Collaborative Filtering with Dictionary Learning to Improve PSNR, Advances in Computational Sciences and Technology, Vol 10, issue 1, pp. 147-158, ISSN: 0973-6107

- Kidwai N.R., Khan E., Reisslein M.(2016), ZM-SPECK: A Fast and Memory-less Image Coder for Multimedia Sensor Networks, IEEE Sensors Journal(Impact factor 1.889), Vol 16, issue 8, pp. 2575 – 2587, ISSN: 1530-437X

- Tausif M., Kidwai N.R., Khan E., Reisslein M.(2015), FrWF-based LMBTC: Memory-Efficient Image Coding for Visual Sensors, IEEE Sensors Journal (Impact factor 1.889), Vol 15, issue 11, PP 6218 – 6228, ISSN: 1530-437X

- Khursheed F., Saeed S. H., Kidwai N.R., Rahman S. (2015), RFID: In The World of Health Care, International Journal of Life Sciences and Review (IJLSR) (CIF 4.996), Vol 1, issue 2, pp. 34-40, ISSN (online) 2394-9864

- Khursheed F., Kidwai N.R., (2015), Collision Recovery in RFID System, International Journal of Electronics, Communication& Instrumentation Engineering Research and Development (IJECIERD) (JCCIF 6.7847), Vol. 5, issue 3, pp. 61-76, ISSN: 2249-684X

- Khan I. U., Kumar S, Saeed S H., Kidwai N.R.(2015), Next Generation Video Coding Systems (H. 265/HEVC) and its Comparison from H. 264/AVC Video Codec, International Journal of Engineering Technology, Management and Applied Sciences, (DIIF 2.4)Vol 3, issue 4, pp. 42-45, ISSN 2349-4476

- Pandey C., Kidwai N.R., Pandey D. (2015),Video Compression Using MATLAB, Journal of Computing Technologies (SJIF 3.017), Vol. 4, issue 4, pp. 36-43.ISSN (online) 2278-3814

- Kumari V., Kidwai N.R., Alam M. (2015), Low Complexity Viterbi Decoder by Using Trellis Structure, International Journal of Electronics, Communication & Instrumentation Engineering Research and Development(JCCIF 6.7847), Vol. 5, issue 3, pp. 37-50, ISSN 2249-684X

- Ali M. A., Kidwai N.R., Alam M., (2014), Face Recognition System for Mobile Phone, International Journal of Innovative Science, Engineering & Technology(SJIF 5,264), Vol. 1 Issue 3, PP 500-503, ISSN 2348 - 7968

- Shobhraj, Kidwai N.R., Alam M., (2014), Fingerprint Recognition System, International Journal of Innovative Science, Engineering & Technology(SJIF 5,264), Vol. 1 Issue 3, PP 504-512, ISSN 2348 - 7968

- Chandra M., Prabhakar G., Kidwai N. R. (2013), A Multiple Description Coding Method Based on Set Partitioning in Hierarchical Tree Algorithm for High Definition Image,International Journal of

Electrical and Electronics Engineering Research (IJEEER) (JCC IF 7.8965), Vol. 3, No. 1, pp 55-60, ISSN 2250-155X

- Kidwai N.R., Khan E., Beg R., (2012), A Memory Efficient Listless SPECK (MLSK) Image Compression Algorithm for Low Memory Applications,International Journal of Advanced Research in Computer Science IJARCS (GIF: 0.765), Vol. 3 No. 4, 2012. pp 209-215, ISSN: 0976-5697

- Kidwai N.R., Alam M., Khan E., Beg R., (2012), A Efficient Memory No List Set Partitioned Embedded Block (NLSK) Wavelet Image Coding Algorithm for Low Memory Devices, International Journal of Signal Processing, Image Processing and Pattern Recognition (IJSIP), SERSC, Korea, Vol. 5, No. 4, 2012, pp 93-106, ISSN: 2005-4254

- Kidwai N.R., Khan E., Beg R., (2012), A Memory Efficient No List SPECK (NSK) Wavelet Image Coder forMemory Constrained Applications, Journal of Remote Sensing & GIS (SJIF: 3.713), STM Journals publication, Vol. 2, No. 3, pp 1-16. ISSN: 2321–421X

- Alam M, Kidwai N.R., Khan E., Gopal Bal, (2012), Modified Listless Set Partitioning in Hierarchical Trees (MLS) for Memory Constrained Image Coding Applications,Current Trends in Signal Processing, (SJIF: 3.649), STM Journals, Vol. 2, No. 2, pp 1-11, ISSN: 2321–4252

PAPER PUBLISHED IN INTERNATIONAL CONFERENCES

- Jaiswal T., Kidwai N. R., (2024) "Security in Mobile Ad Hoc Networks: Impact of Attacks and Countermeasure Approaches", Soft Computing: Theories and Applications. SoCTA 2023. Lecture Notes in Networks and Systems, vol 970. Springer, Singapore. https://doi.org/10.1007/978-981-97-2031-6_10

- Kulshreshtha T., Singh S. K., Chaurasia R., Kumar M. Kidwai N. R., (2022) "Low-Power Front End for Continuous-Wave Doppler Harmonic Ultrasonography System", Low-Power Front End for Continuous-Wave Doppler Harmonic Ultrasonography System, ol 376. Springer, Singapore. https://doi.org/10.1007/978-981-16-8826-3_38

- Bajpai S., Singh H, V., Kidwai N. R., (2017) "Feature Extraction & Classification of Hyperspectral Images using Singular Spectrum Analysis & Multinomial Logistic Regression Classifiers", International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT 2017), IEEE Xplore, pp 97 - 100

- Khan K., Singh O., Khan I.U., Saeed S. H., Kidwai N.R., (2016) "Renewable Energy for Rural Applications and Its Promotion in Rural India, National Conference on Emerging trends in Non-Conventional Energy Resources (ETNCER-16) organized by Integral University Lucknow

- Khan F. A., Alam M. Saeed S. H., Chandel V. S., Kidwai N. R. (2016), Hybrid Electricity Generation from Solar PV, Speed Breaker and Traffic Sound for Automatic Street Light, Proceedings of ETNCER-16, Advances in Physical Science Research, Vol. 8, No. 2, pp. 32-41, ISSN 2321 – 9742

- Farha, Alam M, Kidwai N.R., (2014), Analysis of SPIHT and its Low Memory Version, National Conference On "Advance Research and Innovation in Science & Engineering" (ARISE-14), T. M. U., Moradabad, pp 24-29, ISBN 978-93-5174-106-0

- Mishra S. K., Singh R.K., Kidwai N.R., (2014), "Memory Efficient and Less Complex Multiple Descriptive Coding Based On Set Partitioned Embedded Block Coder for Image Communication Over Wireless Channels, National conference on challenges and opportunities for technological innovation in India COTII-2014, Ambalika I. T.M., Lucknow, India

- Husain D., Trivedi A.K., Kidwai N.R., Alam M. (2014), Design of hearing aid using Halfband filter, National conference on challenges and opportunities for technological innovation in India COTII-2014, Ambalika Institute of Technology &Management, Lucknow, India

- Ali M. A., Siddiqui A. A., Kidwai N.R., (2013), A Review Study On Face Recognition System, National conference on challenges and opportunities for technological innovation in India COTII-2013, Ambalika Institute of Technology &Management, Lucknow, India

- Kidwai N.R., Alam M., Khan E., Beg R., (2011), A Fast and Memory Efficient Wavelet Based Set Partitioned Embedded Block Image Coding Algorithm, International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT 2011), IEEE Xplore, pp 320-323, ISBN 978-1-4577-1105-3

- Kazmi M. S.,Alam I., Pandey S., Srivastava A., Kidwai N.R., (2010), Online Automatic Text-Independent Speaker Recognition System, In First International conference on emerging trends in signal processing & VLSI, June 2010, GNEC Hyderabad, India, supported by IEEE.

- Alam M., Kidwai N.R., Gopal Bal, (2010), Image De-noising using integer wavelet multilevel decomposition, In First International conference on emerging trends in signal processing & VLSI, June 2010, GNEC Hyderabad, India, supported by IEEE.

BOOK EDITED/ AUTHORED

"Electronic Devices and Circuits:" byK V Rao, K R Sudha, McGraw Hill Education 2015

"Basic Electrical and Electronics Engineering:" by R R Singh, McGraw Hill Education 2010

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