

CURRICULUM VITAE

Ashok Kumar Shankhwar

Professor, Department of Electronics Engineering
School of Engineering, HBTU, Kanpur-208 002

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Academic Qualification

Examination/ Degree	Specialization	Board/University	Passing Year	Division
B.Tech	Electronics Engineering	KNIT Sultanpur/ Avadh University, Faizabad	1991	I st
M.Tech.	Digital Techniques in Instrumentation	SGSITS Indore/RGPV Bhopal	2003	Ist
Ph.D.	Design and Performance Evaluation of Generalized Rake Receiver for High Data Rate for Mobile Radio	M.N.N.I.T. Allahabad	Awarded in September 2014	

International Journal.

1. **Ashok K. Shankhwar**, Sachin Sharma, Arun Prakash and Rajeev Tripathi, "Fast Converging Generalized Turbo Decoding Scheme with Enhanced Throughput for Mobile Radio," *Communication and Network*, SCIRP, USA, ISSN: 1949-2421, Vol. 5, Issue 1, pp.9--15, DOI: 10.4236/cn.2013.51001.
2. Md. Iftexhar, **Ashok K. Shankhwar**, Arun Prakash, and Rajeev Tripathi, "Performance Evaluation of Adaptive Modulation Based MC-CDMA System," *Wireless Engineering and Technology*, SCIRP, USA, ISSN: 2152-2294, Vol. 4, Issue 1, pp.54--58, DOI: 10.4236/wet.2013.41008.
3. Parnika Kansal and **A K Shankhwar**, "Performance Analysis of FBMC-OQAM based 5G Wireless System using PAPR" *International Journal of Computer Applications* 161(12):15-20, March 2017. DOI: 10.5120, /ijca2017913105
4. Kansal, P. and **Shankhwar, A.K.**, "FBMC vs OFDM Waveform Contenders for 5G Wireless Communication System," *Wireless Engineering and Technology*, 8, pp 59-70 Oct. 23, 2017. DOI: 10.4236/wet.2017.84005 <https://doi.org/10.4236/wet.2017.84005>.
5. M. Srivastava, M. K. Shukla, N. Srivastava, **A.K. Shankhwar** " PAPR Reduction in ACO-OFDM for Visible Light Communication System", *Journal Of Engineering Science And Technology* Vol. 13, No. 9 (2018) 2930 - 2944 © School Of Engineering, Taylor's University.
6. Iqra, **A. K. Shankhwar**, J. Bhasker, "Design of Carbon Fiber Based Reinforced Polymer Based Parabolic Reflector" *International Journal of Research in Mechanical and Civil Engineering (IJERMCE)*, Vol.4, Issue 5, May 2019. ISSN(online) 2456-1290.
7. R. Pandey, **A. K. Shankhwar**, and A. Singh, "Design, Analysis, and Optimization of Dual Side Printed Multiband Antenna for RF Energy Harvesting Applications," *Progress In*

- Electromagnetics Research C*, Vol. 102, 79-91, May 2020. (Elsevier SCOPUS Indexed)
doi:10.2528/PIERC20022901
8. Sadhana Pal, **A. K. Shankhwar**, “Design and Analysis of Slotted Patch Microstrip Antenna” *International Journal of Emerging Technology and Advanced Engineering* (ISSN 2250-2459, ISO 9001: 2008 Certified Journal) Volume 10, Issue 05, May 2020.
 9. Pooja Nishad, **A. K. Shankhwar**, “Energy Efficiency Adapted Sector based Stable Election Protocol in Wireless Sensor Networks” *International Journal for Research in Applied Science and Technology*. Volume 8, issue VI, June 2020. doi: 10.22214
 10. M. Srivastava, M. K. Shukla, N. Srivastava, **A. K. Shankhwar**, “ A Hybrid Scheme for Low PAPR in Filter Bank Multicarrier Modulation” *wireless personal communications* 113(9), July 2020 DOI:10.1007/s11277-020-07265-7
 11. Rashmi Pandey, **Ashok K. Shankhwar**, and Ashutosh Singh, “An Improved Conversion Efficiency of 1.975 to 4.744GHz Rectenna for Wireless Sensor Applications” *Progress in Electromagnetics Research C*, Vol. 109, 217–225, 2021. (SCOPUS)
 12. Rashmi Pandey, **Shankhwar A.K.**, Singh A. “Far Field Analysis of Defected Ground Structured Wideband Antenna for RF Energy Harvesting Applications”. In: Harvey D., Kar H., Verma S., Bhadauria V. (eds) *Advances in VLSI, Communication, and Signal Processing. Lecture Notes in Electrical Engineering*, vol 683. (2021), Springer, Singapore. https://doi.org/10.1007/978-981-15-6840-4_16 (SCOPUS).
 13. Aishwarya Tomar, **A.K. Shankhwar**, “Investigation and Design of Dual Gate Dielectrically Modulated Junction less TFET for Biomolecule Recognition” *International Journal for Research in Applied Science & Engineering Technology (IJRASET)* Volume 9 Issue VI Jun 2021. ISSN: 2321-9653;
 14. Prishail Mishra, **A. K. Shankhwar**, “Dual-band T Shaped Antenna at Millimeter Wave Frequency for 5G Applications” *International Journal for Research in Applied Science and Technology*. Volume 9, Issue VII, July 2021. doi: 10.22214
 15. Rashmi Pandey, **Shankhwar A.K.**, Singh A. “Design and Analysis of Rectenna at 2.42 GHz for Wi-Fi Energy Harvesting” *Progress In Electromagnetics Research C*, Vol. 117, 89-98, Dec. 2021. [Doi:10.2528/PIERC21100409](https://doi.org/10.2528/PIERC21100409)
 16. Varunika Dixit, **A. K. Shankhwar**, “Adaptive Power Allocation for Cooperative FD-NOMA Systems in 5G Systems” *Journal of Electronics and Communication Engineering Research* Volume 8 ~ Issue 9 (2022) pp: 07-12. ISSN(Online): 2321-5941.
 17. Varunika Dixit, **A. K. Shankhwar**, “Adaptive Power Allocation For Cooperative Noma System With Imperfect SIC” *International Journal of Electronics and Communication Engineering (IJECE)*, ISSN (P): 2278–9901; ISSN (E): 2278–991X Vol. 11, Issue 2, Jul–Dec 2022.
 18. Abhishek Chauhan, **A. K. Shankhwar**, “Design & Development of Fuzzy Inference System for Hand-off in Cellular System” *International Journal of Engineering Research & Technology (IJERT)*, ISSN: 2278-0181 Vol. 11 Issue 08, August-2022.
 19. Abhai Shankar Chaurasia, **A. K. Shankhwar**, and A. Singh, “Design and analysis of the Flexible Antenna behavior for Microwave Imaging of breast cancer” *Journal of Integrated*

Science and Technology, J. Integr. Sci. Technol., Issue Vol.12 No.2 (2024), September 2023.
<https://pubs.thesciencein.org/journal/index.php/jist/article/view/a727>

20. Rashmi Pandey, **Shankhwar A.K.**, Singh A. "RF Rectenna: Fundamental Discussions and Applications in Modern Wireless Trends" *Industrial Engineering Journal*, ISSN: 0970-2555 Volume: 52, Issue 12, No. 2, December: 2023.
21. Abhai Shankar Chaurasia, **A. K. Shankhwar**, and Rajeev Gupta, "Design and analysis of UWB patch antenna for breast cancer detection", *Journal of Integrated Science and Technology (Scopus)*, Vol.12 . No.6(2024), 11-July 2024.
DOI: [10.62110/sciencein.jist.2024.v12.837](https://doi.org/10.62110/sciencein.jist.2024.v12.837)
22. Rashmi Pandey, Kuldeep Pandey , **A. K. Shankhwar**, Rajeev Gupta,. "High-Efficiency Multiband Rectifier for RF Energy Harvesting Applications" *Microwave Review*, Vol. 30, No. 2, pp. 169-174, December 2024 **DOI:** [10.18485/mtts_mr.2024.30.2.20](https://doi.org/10.18485/mtts_mr.2024.30.2.20)
23. Sunil K. Dubey, **Ashok K. Shankhwar**, Nand Kishore, and Alkesh Agrawal, "High Gain and Bandwidth Enhanced Microstrip Patch Antenna with Defective Ground Structure Loaded with Metamaterial Unit Cells for Intelligent Transportation Systems," *Progress In Electromagnetics Research M*, Vol. 136, 57–67, 2025.
DOI: [10.2528/PIERM25101001](https://doi.org/10.2528/PIERM25101001)

International Conference

1. **A. K. Shankhwar**, A. Prakash and R. Tripathi, "Study and Performance of Adaptive Modulation for Wireless Fading Channel," *Proceedings of International Conference on Electronics, Communication and Instrumentation, ICECI-2012*, Jhansi, India, 6-7 April 2012 pp. 400-405.
2. S. Soni, A. Singh, and **A. K. Shankhwar**, "ITOS: Increased throughput with optimized sink position protocol in Wireless Body Area Network," *International Conference on Multimedia, Signal Processing and Communication Technologies (IMPACT)*, Aligarh, 2017, pp. 109-113.**DOI:** [10.1109/MSPCT.2017.8363985](https://doi.org/10.1109/MSPCT.2017.8363985)
3. S. Singh, P. Bajpai, A. Singh, and **A. K. Shankhwar**, "A New Incentive Based Algorithm for Avoiding Free Riding in Peer to Peer Network," *International Conference on Computational and Characterization Techniques in Engineering & Sciences (CCTES)*, Lucknow, India, 2018, pp. 156-159.**DOI:** [10.1109/CCTES.2018.8674136](https://doi.org/10.1109/CCTES.2018.8674136)
4. R. Giri, A. Singh, and **A. K. Shankhwar**, "Performance Improvement in Cognitive Radio using Even-Odd technique in QAM based K-spectrum Sensing Scheme," *International Conference on Computational and Characterization Techniques in Engineering & Sciences (CCTES)*, Lucknow, India, 2018, pp. 132-136.**DOI:** [10.1109/CCTES.2018.8674161](https://doi.org/10.1109/CCTES.2018.8674161)
5. Iqra, **A. K. Shankhwar**, J. Bhasker, "Design of Carbon Fibre Based Reinforced Polymer Based Parabolic Reflector" *International conference on Academic Science and Engineering(ICASAE-2019)*, IFERP, Lucknow, June 07-08, 2019.
6. P. Bajpai, A. Singh, and **A. K. Shankhwar**, "Performance Analysis of Neighbour Centrality Method Based Rumor Spread Control with Variable Spreading Rate, " *International*

Conference on Electrical, Electronics and Computer Engineering (UPCON), ALIGARH, India, 2019, pp. 1-6. DOI: [10.1109/UPCON47278.2019.8980211](https://doi.org/10.1109/UPCON47278.2019.8980211)

7. Pandey R., **Shankhwar A.K.**, Singh A., 'Defected Ground Structured Wideband Antenna For RF Energy Harvesting'. (*IEEE*) *SCOPUS Proceedings of the Fourth International Conference on Trends in Electronics and Informatics (ICOEI 2020)* DVD Part Number: CFP20J32-DVD; ISBN: 978-1-7281-5517-3, 15 June 2020, pp. 280-283.
8. Pandey Rashmi and **A K, Shankhwar** and Singh, Ashutosh, "Design and Analysis of Wideband Rectenna for IoT Applications" *International Conference on IoT Based Control Networks & Intelligent Systems, ICICNIS 2020*, Available at SSRN: <https://ssrn.com/abstract=3769225> or <http://dx.doi.org/10.2139/ssrn.3769225> (SCOPUS) January 19, 2021.
9. Aishwarya Tomar, **A.K. Shankhwar**, "Design and Performance Investigation of Symmetrical Dual Gate Dopingless TFET for Biomolecule Recognition" *Proceedings of International Conference on Women Researchers in Electronics and Computing (WREC 2021)* April 22-24, 2021. Organized by the Department of Electronics and Communication Engineering, Dr. B. R. Ambedkar National Institute of Technology, Jalandhar, Punjab, INDIA Proceedings DOI: 10.21467/proceedings.114 Series: AIJR Proceedings; ISSN: 2582-3922; ISBN: 978-81-947843-8-8
10. Rashmi Pandey, **A. K. Shankhwar** and A. Singh, "Design of Triple band Slot Antenna for RF Energy Harvesting" *IEEE [2nd International Conference on Electronics and Sustainable Communication Systems (ICESC 2021)]* Hindustan Institute of Technology; Madras (Coimbatore) Section - ED Chapter; IEEE - Madras Section, IEEE XPLORE ISBN: 978-1-6654-2867-5, IEEE DVD ISBN: 978-1-6654-2866-8
11. Abhai Shankar Chaurasia, **A.K.Shankhwar**, and A. Singh, "Design of Novel Patch Antenna Using CST Software" *IEEE [2nd International Conference on Electronics and Sustainable Communication System (ICESC 2021)]*, Hindustan Institute of Technology, Madras (Coimbatore) section-ED chapter. (August4-6,2021). DOI: [10.1109/ICESC51422.2021.9532843](https://doi.org/10.1109/ICESC51422.2021.9532843).
12. Rashmi Pandey, **A. K. Shankhwar** and A. Singh, "Design of Dual Band Printed Antenna for RF Energy Harvesting Applications" *Springer [4th International Conference on VLSI, Communication and Signal Processing (VCAS 2021)]* MNNIT, Allahabad, Prayagraj 24-26, September 2021.
13. Abhai Shankar Chaurasia, **A.K.Shankhwar**, and A. Singh, "Design & Analysis of Complex Shaped Flexible Patch Antenna" *IEEE [2nd International Conference on Smart Electronics and Communication (ICOSEC 2021)]*, Tamil Nadu-India, October 7-9. 2021. DOI: [10.1109/ICOSEC51865.2021.9591891](https://doi.org/10.1109/ICOSEC51865.2021.9591891)
14. Pandey, K., **Shankhwar, A.K.**, Sadiwala, R. (2022). "Parametric Analysis of Circular Patch Wideband Antenna for IoT Application". In: Dhawan, A., Mishra, R.A., Arya, K.V., Zamarreño, C.R. (eds) *Advances in VLSI, Communication, and Signal Processing*. Lecture Notes in Electrical Engineering, vol 911. Springer, Singapore. <https://doi.org/10.1007/978-981-19-2631-09>.

15. Somesh Kumar Malhotra, Dr. **Ashok Kumar Shankhwar**, “Review of Various Patch Antenna Designs and Feed Techniques” *2nd International Conference on Indian & Russian Knowledge System*, Chhatrapati Shahu ji Maharaj University, Kanpur-India and Penza State University, Russia Federation, 10-11 October, 2024.
16. Somesh Kumar Malhotra, Dr. **Ashok Kumar Shankhwar**, “Analysis of Rectangular Patch Antenna for Millimeter Wave Application Using Different Feed Methods ” *IEEE International Conference on Sustainability, Innovation & Technology (ICSIT) 22-23 Aug.2025*, Nagpur,India. zDOI: [10.1109/ICSIT65336.2025.11295821](https://doi.org/10.1109/ICSIT65336.2025.11295821)

Patents filed and Published

1. A patent has been published for “IoT-Based Voice-Assisted Device for Indoor Navigation and Positioning” with Application Number 425497-001, in the Official Journal of The Patent Office (Issue Number 37/2024), with a publication date of 12/09/2024.
2. A patent has been published for “Microstrip Patch Antenna with Metamaterial Unit Cells Loaded Radiating Patches and Ground Structure for its Applications” with Application Number 202511024894 A, in the Official Journal of The Patent Office (Journal No. 14/2024), with a publication date of 04/04/2025

Reviewer

A. Books

1. Analog And Digital Communication, Tata McGraw Hill 2012

B. International Journal

1. Transactions of the Institute of Measurement and Control, SAGE Publications, U.K.
2. International Journal of Wireless Networks and Broadband Technologies, IGI Global USA
3. International Journal of Big Data Intelligence, Inderscience publishers UK

C. International Conference

1. Sixth IEEE Conference on Wireless Communication and Sensor Networks (WCSN-2010), IIT Allahabad.
2. Seventh IEEE Conference on Wireless Communication and Sensor Networks (WCSN-2011), IIT Allahabad.

D. Administrative Positions

1. Faculty Advisor ISF Department of Electronics Engineering.
2. I/C M.Tech Programme of Department of Electronics Engineering.
3. Member DPC of Electrical Engineering Department, SPS, Placement cell.
4. Officer Incharge SPS
5. Convener IAP cell, Department of Electronics Engineering.
6. Member Academic Council of the Institute.
7. Member Purchase Verification Committee of the Institute
8. ASE at Exam cell in HBTU
9. Department representative in university placement cell.
10. Member Admission Committee-2018 of the University.

11. Associate Dean Incubation Hub
12. Head of Department of Electronics Engineering Since Oct 14, 2021

E. Interaction with other Institute/ Universities/Government Organizations

1. Member Selection Committee for Laboratory Supervisor, Junior Laboratory Technician at IIT Kanpur
2. Member Technical Bidding Committee at ALIMCO
3. Convener, Screening Committee for accreditation 'o' level courses appointed by NIELET, New Delhi.
4. Head Examiner UPTU
5. Member Flying Squad UPTU
6. Member BoS in the Department of Electronics Engineering at KNIT Sultanpur.
7. Examiner for M.Tech Thesis at UPTU Lucknow, Integral University, Lucknow, and Galgotia University, Greater NOIDA.
8. Question Paper setter for Integral University, Lucknow
9. Nodal Officer for UPSEE-2015

F. M.Tech/PhD Thesis Supervised

1. Ph.D: See Table Below

S.No.	Name	Title	Degree	University	Year
1.	Rashmi Pandey	Design and Analysis of Rectenna for RF Energy Harvesting	Ph. D.	HBTU, Kanpur	2022
2.	Priyanka Agarwal	Performance Evaluation of Multicarrier Multiple Access Techniques on Power line Communication	Ph. D.	HBTU, Kanpur	2023
3.	Abhai Shankar Chaurasia	Design and Analysis of Antenna for Breast Cancer Detection	Ph. D.	HBTU, Kanpur	Thesis Submitted

G. Seminar/conference/workshop organized/attended:

S.No.	Name of course	Name of organization	Status of participation	Period	
				From	To
1.	Wireless and Mobile Communication	MNNIT, Allahabad	Attended**	30.06.2008	12.07.2008
2.	VLSI for signal processing & communication	MNNIT, Allahabad	Attended	12.01.2009	24.01.2009
3.	Issues and Design of distributed system and its application	MNNIT, Allahabad	Attended	27.02.2009	07.02.2009
4.	Simulation on Circuit Design and Signal Processing	HBTI, Kanpur	Organized	14.10.2013	15.10.2013
5.	Modeling, Simulation and Analysis of Engineering Systems	HBTI, Kanpur	Attended	25.10.2013	30.10.2013
6.	Engineering Education: Opportunities, Challenges and Future Directions	HBTI Kanpur	Attended	07.03.2014	12.03.2014
7.	Digital Communications and Networks	IIT Kanpur	Attended	04.12.2014	06.12.2014
8.	Estimation Theory for Communications And Signal Processing	IIT Kanpur	Attended	21.01.2015	23.01.2015
9.	Virtual Laboratory	IIT Kanpur	Attended	15.03.2015	15.03.2015
10.	State Level Interaction Seminar	HBTI Kanpur	Attended	08.06.2015	09.06.2015
11.	State Level Interaction Seminar	HBTI Kanpur	Organized	08.06.2015	09.06.2015

12.	Management Capacity Enhancement Program	IIM Lucknow, Noida Campus	Attended	16.11.2015	20.11.2015
13.	Management Capacity Enhancement Program	IIM Bangalore	Attended	18.01.2016	22.01.2016
14.	FDP on Achieving Academic Excellence	IIM Raipur	Attended	25.07.2016	30.07.2016
15.	FDP on Advance course on Antennas and Microwaves	HBTU Kanpur	Organized	30.01.2017	04.02.2017
16.	Communication Networks: A Research Perspective	HBTU Kanpur	Organized	27.04.2017	04.03.2017
17.	Workshop on IPR and patenting	HBTU Kanpur	Attended	27.08.2016	29.08.2016
18.	Shannon Centenary Day	IIT Kanpur	Attended	Oct 19, 2016	--
19.	Workshop on EC&EA	HBTU Kanpur	Attended	07.03.2017	09.03.2017
20.	Induction Programme for New Students	HBTU Kanpur	Attended	22.09.2017	24.08.2017
21.	Induction Programme for First year Students	HBTU Kanpur	Organized	15.01.2018	21.01.2018
22.	Outcome based Accreditation	HBTU Kanpur	Attended	22.03.2018	23.03.2018
23.	Summer Training Program on Active Learning for Senior Faculty	IIT , Kanpur	Attended	11.06.2018	15.06.2018
24.	Workshop on NBA Accreditation-criteria, process and execution	NPIU Lucknow	Attended	11.09.2018	12.09.2018
25.	FDP on Methods and Techniques for enhanced teaching and learning in technical Education	HBTU Kanpur	Attended/organized	15.10.2018	20.10.2018
26.	FDP on Start up and entrepreneurship	IED Lucknow	Attended	12.11.2018	16.11.2018
27.	Professional Development Training	IIM Kashipur	Attended	06.05.2018	10.06.2018
28.	STC on Emerging Trends in Communications and Photonic devices	HBTU Kanpur	Organized	16.08.2019	20.08.2019
29.	Control and Machine Learning	HBTU Kanpur	Attended**	16.09.2019	28.09.2018
30.	FDP on Antennas design and Microwave applications	HBTU Kanpur	Organized	September 2021	

** also contributed as **resource person** and engaged lecture in same course

Professional Membership

1. Associate Member - Institution of Electronics & Telecommunication Engineers,
2. Member-IEEE 101453966

Personal Details:

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 Father's Name : Late Shri B. L. Sankhwar
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