

## Resume

1. Name and full correspondence address Dr. Ritu Sharma  
Associate Professor  
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Mob.: 9549654232
3. Institution Malaviya National Institute of Technology,  
Jaipur
4. Date of Birth 16-10-1968
5. Gender (M/F/T) F
6. Category Gen/SC/ST/OBC GEN
7. Whether differently abled (Yes/No) NO

8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University / Institution	% of Mark
1.	B.E.	1994	Electronics and Communication	MBM Engineering College, Jodhpur Jai Narayan Vyas University, Jodhpur	78.33
2.	M.Tech.	2001	Electronics and Communication	MNIT Jaipur	72.3
3.	Ph.D.	2011	Electronics and Communication	MNIT Jaipur	NA

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Design and Analysis of Single Mod and Flattened Dispersion Property in Elliptical Air Hole Photonic Crystal Fiber, Prof. Vijay Janyani and Prof. S.K. Bhatnagar, MNIT Jaipur, 2011

10. Work experience (in chronological order).

S. No.	Positions held	Name of the Institute	From	To	Pay Scale
1.	Work Controller	Modi Olivetti	08-08-1994	31-03-1995	15600-3910 (AGP 5000)
2.	Assistant Professor	MNIT Jaipur	05-03-1999	31-08-2015	15600-3910 (AGP 7000)
3.	Assistant Professor	MNIT Jaipur	01-09-2015	14-05-2018	15600-3910 (AGP 8000)
4.	Associate Professor	MNIT Jaipur	15-05-2018	Till Date	15600-3910 (AGP 9500)

12. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S. No.	Name of Award	Awarding Agency	Year
1.	Life Member	OSI	2004
2.	Member	IETE	2005

12. Publications (*List of papers published in SCI/ SCOPUS Journals, in year wise descending order*).

S. No.	Author(s)	Title	Name of Journal	Volume	Page	Year
1.	Yashaswini Sharma, Ritu Sharma, K.K. Sharma	Enhancing Throughput Over Varied Fading Channels for Cluster Based Cooperative Spectrum Sensing in Cognitive Wireless Networks	International Journal of Wireless Information Networks	30	227-240	2023
2.	Puneet Sharma, Ritu Sharma, Vijay Janyani, Deepak Verma	Development of a multi-modal graphene nanoparticles (GNP)- Polydimethylsiloxane (PDMS) flexible sensor for human activity monitoring and health assessment	International Journal of Electrochemical Science	18 (100236)		2023
3.	Komal Swami, Ritu Sharma	Implementation and Optimization of CNTFET Based Ultra-Low Energy Delay Flip Flop Designs	Silicon	15	1027-1035	2023
4.	SHISHIR SHARMA, NAMRATA SAXENA, RITU SHARMA	Effect of Dimensional Variation on the Performance of Pyramidal Proof-Mass Rectangular Two Beam Piezoelectric Energy Harvester	International Journal of Advances in Electronics and Computer Science	10	27-32	2023
5.	Mamta Devi Sharma, Ajay Yadav, Sarthak Singhal, Ritu Sharma	Performance Investigation of Flexible UWB Antenna near Human	Progress In Electromagnetics Research	97	131-147	2022

		Body for Wearable Appliances	B			
6.	Yashaswini Sharma, Ritu Sharma & K.K. Sharma	Optimization of inter-fusion rule threshold for energy-efficient cluster-based cooperative spectrum sensing over Nakagami and Rician fading channels	International Journal of Electronics	110:8	1534-1554	2022
7.	Lalit Kumar Dusad, Ritu Sharma	Role of silver catalyst in synthesis of porous silicon and vertically aligned nanostructures with High Aspect Ratio without using lithography	Russian Journal of Physical Chemistry A	96	S27-S30	2022
8.	Amit Kumar Sharma, Ritu Sharma & Shishir Kumar Sharma	Performance analysis of all optical-based quantum internet circuits	Journal of Computational Electronics	21	1180-1188	2022
9.	Lokesh Sharma, Ritu Sharma	Performance enhancement of GaN/GaAs based hybrid multi-quantum well LED structures	OPTOELECTRONICS AND ADVANCED MATERIALS – RAPID COMMUNICATIONS	16	300-306	2022
10.	Namrata Saxena, Varshali Sharma, Ritu Sharma, Kamlesh Kumar Sharma, Sudha Gupta	Design, modeling, and frequency domain analysis with parametric variation for fixed-guided vibrational piezoelectric energy harvesters	Microprocessors and Microsystems	95 (104692)		2022
11.	Namrata Saxena, Varshali Sharma, Ritu Sharma, Kamlesh Kumar Sharma & Kapil	Design, parametric analysis and comparison of fixed-guided two beam and four beam	Microsystem Technologies	28	1203-1212	2022

	Kumar Jain	vibrational piezoelectric energy harvesters				
12.	Girraj Sharma & Ritu Sharma	Joint Optimization of Fusion Rule Threshold and Transmission Power for Energy Efficient CSS in Cognitive Wireless Sensor Networks	Wireless Personal Communications	123	2107-2125	2022
13.	Shanky Saxena, Ritu Sharma & B. D. Pant	Fabrication of Fixed-Fixed Beam Type Piezoelectric Vibration Energy Harvester	Silicon	14	5975-5982	2022
14.	Namrata Saxena, Varshali Sharma, Ritu Sharma, K K Sharma, Kapil Kumar Jain	Design, Modeling and Parametric Analysis of Piezoelectric Energy Scavenger on Silicon Substrate as a Vibration Sensor	Silicon	14	3765-3774	2022
15.	Amit Sharma, Ritu Sharma	Design and performance analysis of deterministic iSWAP gate using a resonator as coupler	Journal of Optical Technology	535,004		2021
16.	Namrata Saxena, Varshali Sharma, Ritu Sharma, K K Sharma, Kapil Kumar Jain	The Effect of Thermal Annealing on Structural, Morphological and Optical Features of BaTiO <sub>3</sub> Thin Film Prepared by e-Beam PVD Technique	Iranian Journal of Materials Science and Engineering	18 (2)	1-12	June 2021
17.	Amit Kumar Sharma & Ritu Sharma	Effect of noise on the performance of deterministic CNOT gate for photonic Qubits	Optical and Quantum Electronics	53		2021
18.	Bhuvash Jolly, Wahdat Ullah, Namrata Saxena, Ritu Sharma, Vijay Janyani	Structural and microstructural analysis of spin coated PVDF thin films	Ferroelectrics	583	151-161	2021
19.	Komal Swami, Ritu Sharma	Double Throughput CNTFET Based Dual Edge	Solid state technology	64 (8)		2021

		Triggered Flip Flop Design for Ultra-Low Voltage Applications	gy			
20.	Atul Sharma, Ritu Sharma, Anup Sharma	Synthesis and study of polyaniline/MWCNT composite for optoelectronic application	Bulletin of Materials Science	44 (121)		2021
21.	Girraj Sharma, Yashaswini Sharma, Vivek Upadhyaya, Ashish Kumar, Ritu Sharma	Inter and Intra Fusion Schemes for Energy Efficient CB-CSS in Cognitive Wireless Networks	International Journal of Electronics	20	1-17	2021
22.	Lokesh Sharma, Ritu Sharma	Optimized design of Narrow Spectral Linewidth Nonpolar m-Plane InGaN/GaN Micro-Scale Light-Emitting Diode	Journal of optics	11	397-402	2020
23.	Namrata Saxena , Varshali Sharma , Ritu Sharma, K K Sharma , Kapil Kumar Jain , Santosh Chaudhary	Enhancement in structural, morphological and optical features of thermally annealed zinc oxide nanofilm	Indian Journal of Pure and Applied Physics	58	642-648	2020
24.	Kuntal Panwar, Ritu Sharma,, Varshali Sharma, Namrata Saxena, Santosh Chaudhary	Design and analysis of decagonal photonic crystal fiber with elliptical air hole core for liquid sensing	Indian Journal of Engineering and Material Science	27	465-470	2020
25.	Shanky Saxena,Ritu Sharma, B. D. Pant	Fabrication process for very-low frequency operation of guided twobeam piezoelectric energy harvester	Microsystem Technologies	26		2020
26.	Girraj Sharma, Ritu Sharma	Cluster based distributed cooperative spectrum sensing over Nakagami fading using diversity reception	IET networks	10		2019
27.	Girraj Sharma, Ritu Sharma	Energy Efficient Collaborative	IET Commun	10		2019

		spectrum sensing with clustering of secondary users in cognitive radio Networks	ications			
28.	Anup Sharma, Srinivas Yadav, Swati Sharma, Ritu Sharma	Scalable Synthesis of Highly Conductive Graphene-Based Thin Film for Super Capacitor Application	IEEE Transactions on Nanotechnology	18		2019
29.	Shanky Saxena, Ritu Sharma, B D Pant	Fabrication and Comparison of Guided Two Beam and Four Beam Piezoelectric Energy Harvester for low Frequency operation	IEEE Journal of Microelectromechanical Systems	10		2019
30.	Shanky Saxena Ritu Sharma, B. D. Pant	Design Optimization in geometry of seismic mass for MEMS based cantilever type Piezoelectric energy harvester for motor vibration	Indian Journal of Pure and Applied physics	57	334 - 337	2019
31.	Shanky Saxena, Ritu Sharma, B.D. pant	Fabrication and sensitivity Analysis of Guided beam Piezoelectric energy harvester	IEEE Transaction on Electron Devices	65		2018
32.	Girraj Sharma, Ritu Sharma	Performance improvement of CSS over imperfect reporting using diversity reception in cognitive radio networks	World Journal of Engineering	12		2018
33.	Girraj Sharma, Ritu Sharma	Joint sensing time and fusion rule threshold optimization for energy efficient CSS in cognitive radio sensor networks	International Journal of Communication system	10		2018
34.	Anup Sharma, Ritu Sharma	Fabrication and Characterization of Zinc Oxide/Multi-walled Carbon Nanotube Schottky Barrier Diodes	Journal of Electronic Material	47		2018

35.	Girraj Sharma, Ritu Sharma	Performance Evaluation of Distributed CSS with clustering of Secondary users fading Channels	International Journal of Electronics Letters	1		2017
36.	Girraj Sharma, Ritu Sharma	Performance comparison of centralised and distributed CSS over fading channels in cognitive radio	Cogent engineering	4		2017
37.	Anup Sharma, Ritu Sharma, Upendra chaudhary	Hydrogen-Acetylene Gas Ratio and Catalyst Thickness Effect on the Growth of Uniform Layer of Carbon Nanotubes	Fullerenes, Nanotubes and Carbon Nanostructures	2		2017
38.	Shanky Saxena, Ritu Sharma, B.D. pant	Dynamic characterization of fabricated guided two beam and four beam cantilever type MEMS based piezoelectric energy harvester having pyramidal shape seismic mass	Microsystem Technology	1		2017
39.	Sabiha Khan, Varsha goyal, Ritu Sharma, Varshali Sharma, K.S.Sharma	Investigation of the Effect of Boron and Nitrogen substitution on electronic structure of graphene	Flatchem	1		2017
40.	Anup Kumar Sharma, Ritu Sharma, Ramesh Prajapati , Santosh Chaudhary	Effect of Different Acid Oxidation on Morphology, Dispersion and Optical Band-gap	Fullerenes, Nanotubes and Carbon Nanostructures	10		2016
41.	Shanky Saxena, Ritu Sharma, B.D. Pant	Design and Development of guided four beam cantilever type MEMS based piezoelectric energy harvester	Microsystem Technology	22	1 - 9	2016
42.	Varshali sharma, Ritu Sharma	Design of hybrid photonic crystal	Journal of	10		2016

		fiber with elliptical and circular air holes analyzed for large flattened dispersion and high birefringence	nanophotonics			
43.	Ritu Sharma, Upendra Chaudhary, Ghanshyam Singh	A review on Surface Plasmon resonance and its application as bio-sensing element	J. Biosensor Bioelectronics	7	1 - 6	2016
44.	Ritu Sharma, Anup Kr. Sharma, Gaurav Sharma, Varshali Sharma	Effect of different metal catalysts on the growth of carbon nanotubes by chemical vapor deposition using five step process	Journal of optoelectronics and advanced material	17	1728 - 1733	2015
45.	Ritu Sharma, Anup Sharma, varshali Sharma	Synthesis of carbon nanotubes by arc discharge and chemical vapor deposition method with analysis of its morphology, dispersion and functionalization characteristics	COGENT ENGINEERING	10		2015
46.	Ritu Sharma, Lalit Dusad	A review and analysis on growth and optical absorption properties of silicon nanowire array for photovoltaic applications	Modern Physics Letter B	29		2015
47.	Santosh Chaudhary, Mohan Kumar Choudhary, Ritu Sharma	Effects of thermal radiation on hydromagnetic flow over unsteady stretching sheet embedded in a porous medium in the presence of heat source or sink	Meccanica	10		2015
48.	Pushpa gangwal, Mamta kamra, Ritu sharma, Santosh Chaudhary	A novel design of PCF with composite lattice	International journal of innovative research	2		2015

			n engineeri ng			
49.	Mohan Kumar Choudhary, Santosh Chaudhary and Ritu Sharma	Unsteady MHD Flow and Heat Transfer over a Stretching Permeable Surface with Suction or Injection	Procedia Engineer ing	127		2015
50.	Ritu Sharma, Anuradha Sharma, varshali Sharma, Santosh C.	Hybrid square lattice photonic crystal fiber with elliptical air hole and doped core	Internati onal journal of Advance ment in Electroni cs and Electrica l Engineer ing (IJAE E E )	4		2015
51.	Shanky Saxena, Ritu Sharma	Effect of shape of seismic mass on potential generated by MEMS-based cantilever piezoelectric energy harvester	Journal of Micro/N anolithog raphy, M EMS, M OEMS	13		2014
52.	Ankur Saharia, Ritu Sharma	An Approach to the realisation of all optical NAND gate using nonlinear effect in SOA	Internati onal Journal of Signal Processi ng and Imaging Engineer ing	1		2014
53.	Varsha Goyal , Ritu Sharma and K.S. Sharma	A Theoretical Investigation of Superconductivity and Electronic Structure of AlB <sub>2</sub> and BeB <sub>2</sub>	Internati onal Journal of Advance s in Science and Technolo gy	4(7)	76-85	2012
54.	Ritu Sharma, Vijay Janyani, S.	Design of Elliptical Air Hole Photonic	Internati onal	3	1 - 7	2011

	K. Bhatnagar	Crystal Fiber for Endlessly Single Mode Property	Journal of Photonics (IJP)			
55.	Ritu Sharma, Vijay Janyani, Anuradha Sharma	Design of Elliptical Air Hole PCF with Hybrid Square Lattice for High Birefringence and a Lower Zero Dispersion Wavelength	International Journal of Computer Science & Emerging Technologies	2		2011
56.	Ritu Sharma, Vijay Janyani, S. K. Bhatnagar	Low chromatic dispersion and high birefringence investigated in elliptical air hole photonic crystal fiber	Journal of Modern Optics	59	205 - 212	2011
57.	Ritu Sharma, Vijay Janyani, S. K. Bhatnagar	Improved Single Mode Property in Elliptical Air Hole Photonic Crystal Fiber	Journal of Modern Optics	58	604 610	2011
58.	Varsha Goyal, Ritu Sharma k.S. Sharma	A unified approach to superconducting state parameters and electronic structure of Mg, B, MgB <sub>2</sub>	Journal of applied physics	2		2011
59.	Smita Sharma, Ritu Jain, Nidhi Bhargava, varsha goyal, Ritu Sharma, K.S.Sharma	Pseudopotential approach to superconductivity in MgB <sub>2</sub>	Indian journal of experimental biology	48		2010
60.	Kavita Sharma, Ritu Jain, Nidhi Bhargava, Ritu Sharma, K.S.Sharma	Dielectric studies of wheat powder form at microwave frequencies	Indian journal of experimental biology	47		2010
61.	Ritu Sharma, Vijay Janyani, Rahul Gupta	Effect of Wafer Dimension on Mode Profile in Photonic Crystal Fiber	International Trends Of Recent Engineering	2		2009
62.	Ritu Sharma and	A Pseudo- potential	Supercon	10		1997

	K.S. Sharma	approach to the superconducting state properties of metallic glass Ca70Mg30	ductor Science and Technology			
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13.	<i>Publications (List of papers published in Peer reviewed International SCOPUS indexed Conferences, in year wise descending order).</i>					
S. No.	Author(s) Name	Title	Publisher	Year of Publication		
1.	Shradha Wagale, Sonu Jain, Ritu Sharma	Button Sized Wearable Antenna Design for ISM Frequency Bands	IEEE	Wireless, Antenna & Microwave Symposium (WAMS2023)		
2.	Sonu Jain, Ritu Sharma	Designing of Polarization Insensitive Microwave Absorber for WLAN Band Application	IEEE	Wireless, Antenna & Microwave Symposium (WAMS2023)		
3.	Puneet Sharma, Ritu Sharma, Vijay Janyani, Aryan Varshney	Design and Simulation of PDMS Based Flexible Sensor Using COMSOL and Interfacing It for Controlled Robotics' Applications	IEEE	6th International Conference on Condition Assessment Techniques in Electrical Systems, CATCON, Durgapur (2022)		
4.	Yashaswini Sharma, Ritu Sharma & K. K. Sharma	Performance evaluation of throughput for CB-CSS in cognitive radio network over Hoyt fading channel	LNSS, Springer	2nd International Conference on Computational Electronics for Wireless Communications (ICWC-2022)		
5.	Mamta Devi Sharma, Ajay Yadav, Sarthak Singhal & Ritu Sharma	Design and Analysis of Compact Dual-Band Antenna for Body Area Network Applications	LNSS, Springer	2nd International Conference on Computational Electronics for Wireless Communications (ICWC-2022)		
6.	Girraj Sharma, Vivek Upadhyaya, Ashish Kumar, Sandeep Vyas & Ritu Sharma	Fusion Rule Optimisation for Energy Efficient Cluster-Based Cooperative Spectrum Sensing	LNEE, Springer	Emerging Electronics and Automation, 2022		
7.	Lokesh Sharma, Ritu Sharma	Investigations on variations of the	SPIE 11995, Physics and Simulation of	SPIE 11995, Physics and Simulation of		

		number of QW layers on optical properties of GaN/AlGaIn based LEDs	Optoelectronic Devices XXX, 1199506 (4 March 2022)	Optoelectronic Devices XXX, 1199506 (4 March 2022)
8.	M. D. Sharma, A. Yadav, S. Singhal and R. Sharma	Design and Simulation of Flower Shaped Flexible Wideband Antenna for WBAN Applications	IEEE	Indian Conference on Antennas and Propagation (InCAP) 2021
9.	Amit Kumar Sharma, Ritu Sharma, Shishir kumar Sharma	Effect of Noise on Concurrence of Compact Photonic CNOT Gate Designed Using Universal Cloner	LNEE, Springer	Intelligent Computing Techniques for Smart Energy Systems-2021 (ICTSES-21)
10.	Amit Kumar Sharma, Shishir Kumar Sharma, Ritu Sharma	A Promising Circuit for All Optical Based Quantum Computing	LNEE, Springer	OWT21
11.	Atul Sharma, Ritu Sharma, Anup Sharma	Model Study of Complex Conductivity and Permittivity of CNT/PANI composite (CPC) material for Application of THz Antenna	Material Today Proceedings, Elsevier	International Conference on Advances in Materials Science, Communication and Microelectronics (ICAMCM-2021)
12.	Mamta Devi Sharma, Ajay Yadav, Sarthak Singhal, Ritu Sharma	Design and Simulation of Flexible Substrate Based Wearable Antenna for WBAN Applications	IEEE	ICRAIE - 2020
13.	Shanky Saxena, Ritu Sharma, B.D. Pant	Effect of Seismic Mass Thickness on the Resonance Frequency of Cantilever Type Piezoelectric Energy Harvester	Material Today Proceedings, Elsevier	International Conference on Advancement in Nanoelectronics and Communication Technologies(ICANCT) - 2020
14.	Shanky Saxena, Ritu Sharma, B.D. Pant	Piezoelectric layer length and thickness variation effects on displacement, von-Mises stress and electric potential generated by cantilever type piezoelectric energy harvester	Material Today Proceedings, Elsevier	International Conference on Advancement in Nanoelectronics and Communication Technologies(ICANCT) - 2020
15.	Manish Ku Pandey,	Design and	LNEE, Springer	International

	Ritu Sharma	Simulation of a Photonic Crystal-Based 2-D Octagonal-Shaped Optical Drop Filter		Conference on Optical and Wireless Technologies (OWT) 2020
16.	Namrata Saxena, Neha Yaragatti, Shishir Sharma, Ritu Sharma	Optimization of Physical Parameters of Single-Beam Vibrational Piezoelectric Energy Harvester	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2020
17.	Amit Sharma, Ritu Sharma	Deterministic 2 Qbit iSWAP Gate Using Resonator as a Coupler	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2020
18.	Yashaswini Sharma, Girraj Sharma, Ritu Sharma, K.K. Sharma	Effect of Number of Users and Number of Clusters Using Distributed Cooperative Spectrum Sensing Over Hoyt Fading Channel	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2020
19.	Sanchit Kundal, Abhinav Bhatnagar, Ritu Sharma	1D Photonic Crystal Waveguide Based Biosensor for Skin Cancer Detection Application	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2020
20.	Shubha Pandey, Ritu Sharma, Ghanpriya Singh	Implementation of 5-Block Convolution Neural Network for Saliency Improvement on Flying Object Detection in Video	IEEE Xplore Digital Library, IEEE	International Conference on Emerging Technologies in Computer Engineering: Machine Learning and Internet of Things (ICETCE) 2020
21.	Yashwini Sharma, Girraj Sharma, Ritu Sharma, K.K. Sharma	Coperative Spectrum Sensing Over Weibull and Hoyt Fading Channel Using Centralized and Distributed Schemes	IEEE Xplore Digital Library, IEEE	International Conference on Emerging Technologies in Computer Engineering: Machine Learning and Internet of Things (ICETCE) 2020
22.	Sharwan Jangid, Ritu Sharma	Implementation of SAC-OCDMA	LNEE, Springer	International

		System Using Generalized Codes Over FSO Channel		Conference on Optical and Wireless Technologies (OWT) 2019
23.	Ronak Dadich, Ritu Sharma	Analysis of Transmission Spectra of a Metal-Liquid Crystal-Metal Waveguide Structure With Different Metallic Layers	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2019
24.	Yashwani Sharma, Girraj Sharm, Ritu Sharma, K. K. Sharma	Centralised and Distributed Coperative Spectrum Sensing Over Fading Channel	Conference Proceedings	National Conference on Advanced Communication and Technologies and Network 2019
25.	Namrata Saxena, Ritu Sharma, K.K.Sharma and Varshali Sharma	Design and Performance Analysis of Single- Beam Piezoelectric Energy Harvester for Low Frequency Applications	Conference Proceedings	National Conference on Advanced Communication and Technologies and Network 2019
26.	Namrata Saxena, Varshali Sharma, Ritu Sharma, K K Sharma, Santosh Chaudhary	Design and Performance Analysis of Different Structures of MEMS PVDF-Based Low Frequency Piezoelectric Energy Harvester	LNEE, Springer	Intelligent Computing Techniques for Smart Energy Systems (ICTSES 2018)
27.	Namrata Saxena, Ritu Sharma, K.K Sharma, Varshali Sharma	Design and Performance Analysis of Different Structures for Low Frequency Peizoelectric Energy Harvester	LNEE, Springer	International Conference on Nanoelectronics, Circuits and Communication Systems (NCCS 2018)
28.	Komal Swami, Ritu Sharma	Optimum Performance of Carbon Nanotube Field Effect Transistor Based Sense Amplifier D Flip Flop Circuits	LNEE, Springer	Intelligent Computing Techniques for Smart Energy Systems (ICTSES 2018)
29.	Charanjeet Kaur, Ritu Sharma	Design and Study of a Photonic Crystal Fiber Biosensor Based on Surface	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT)

		Plasmon Resonance		2018
30.	Kuntal Panwar, Ritu Sharma	Design and Analysis of Decagonal Photonic Crystal Fiber for Liquid Sensing	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2018
31.	Bhupendra Sindhal, Varshali Sharma, Ritu Sharma	Effects of Different Shapes of Piezo-Acoustics Based Adaptive Glucose Sensing System (PABAGS) on Generated Pressure and Its Analysis	LNEE, Springer	International Conference on Engineering Vibration, Communication and Processing (ICoEVCI-2018)
32.	Girraj Sharma, Ritu Sharma	Performance Comparison of Hard and Soft Fusion Techniques for Energy Efficient CSS in Cognitive Radio	LNEE, Springer	International Conference on Advanced Computation and Telecommunication (ICACAT) 2018
33.	Varshali Sharma, Surendra Saini, Ritu Sharma	Design of Channel Add Drop Filter Using Photonic Crystal Ring Resonator	IEEE Xplore Digital Library, IEEE	International Conference on Computer, Communications and Electronics (COMPTHELIX 2017)
34.	Girraj Sharma, Ritu Sharma	Distributed Cooperative Spectrum Sensing Over Different Fading Channels in Cognitive Radio	IEEE Xplore Digital Library, IEEE	International Conference on Computer, Communications and Electronics (COMPTHELIX 2017)
35.	Anu Meena, Ashish Gunawat, Ritu Sharma	Design and Analysis of Tunable Optical Filter Using Different Cavity Shapes	IEEE Xplore Digital Library, IEEE	International Conference on Computer, Communications and Electronics (COMPTHELIX 2017)
36.	Lalit Kumar Dusad, Ritu Sharma	Synthesis of Silicon Nanowire Array by Wet Etching Process and Their Characterization	LNEE, Springer	International Conference on Quality, Productivity, Reliability, Optimization and Modelling (ICQPROM-2017 )
37.	Amritveer Kaur, Julie Devi, Ritu	Design of Octagonal and Decagonal Lattice Photonic Crystal Fiber for Achieving Ultra Low Flattened Dispersion	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2017

38.	Julie Devi, Amritveer Kaur, Ritu Sharma, Varshali Sharma, Santosh Chaudhary	Design and Analysis of Spiral Photonic Crystal Fiber Giving Ultra Flattened Dispersion for C+L+U Band	LNEE, Springer	International Conference on Optical and Wireless Technologies (OWT) 2017
39.	Kuntal Panwar, Ritu Sharma	Underwater Optical Communication-a Review	Conference Proceedings	National Conference on Advanced Communication and Technologies and Network 2017
40.	Bhupendra Sindhal, Ritu Sharma	Piezo- Acoustics Based Adaptive Glucose Sensing System	Conference Proceedings	National Conference on Advanced Communication and Technologies and Network 2017
41.	Charanjeet kaur, Ritu Sharma	Photonic Crystal Biosensors Based on Surface Plasmon Resonance-a Review	Conference Proceedings	National Conference on Advanced Communication and Technologies and Network 2017
42.	Girraj Sharma, Ritu Sharma	Comparative Analysis of Hard Fusion Techniques for Energy Efficient CSS in Cognitive Radio	Conference Proceedings	National Conference on Advanced Communication and Technologies and Network 2017
43.	Girraj Sharma, Ritu Sharma	Cooperative Spectrum Sensing With SLS and Transmit Diversity in Cognitive Radio Networks	Conference Proceedings	International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016)
44.	Rohitash Garwal, Varshali Sharma, Ritu Sharma	Design and Modelling of Diaphragm Type MEMS Based Capacitive Pressure Sensor for Harsh Environment	Conference Proceedings	International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016)
45.	Komal Swami, Ritu Sharma	Performance Improvement in Sense Amplifier Flip Flop Using 32 Nm CNTFET	Conference Proceedings	International Conference on Recent Trends in Engineering and Material Sciences (ICEMS-2016)
46.	R. Ramesh, Ritu Sharma	FFT Implementation on FPGA With Different Adders	Conference Proceedings	Information, Communication and Computing Technology(ICICCT-2016)

47.	Upendra chaudhary, Ritu Sharma, Ghanshyam singh	A Review on Surface Plasmon and Its Application as Biosensing Element	Conference Proceedings	International Conference on Bioelectronics and Biosensor-16 by Euro Biosensor at Valencia, Spain
48.	Komal Swami, Ritu Sharma	Implementation of a Modified Low Power D Flip Flop Using Carbon Nanotube Field Effect Transistors (CNFET)	Conference Proceedings	International Conference on Microelectronics, Communication and Computation (ICMCC-2016) by ISSRD Scientific Research and Development Development at San Diego
49.	Girraj Sharma, Ritu Sharma	A Review on Recent Advances in Spectrum Sensing, Energy Efficiency and Security Threats in Cognitive Radio Network	IEEE Xplore Digital Library, IEEE	International Conference on Microwave, Optical and Communication Engineering (ICMOCE-2015)
50.	Anup Sharma, Ritu Sharma	Temperature Depence Synthesis of Carbon Nanotubes and its Functionalization by acid treatment	IEEE Xplore Digital Library, IEEE	International Conference on Advances in Electronics and Computer Systems 2015
51.	Kuldeep Maheswari, Lalit Dusad, Ritu Sharma	ANALYSIS of 2D PHOTONIC CRYSTALS for REDUCTION in REFLECTANCE in SOLAR CELLS	Conference Proceedings	International Conference on Advances in Electronics and Computer System-2015
52.	Shanky Saxena, Ritu Sharma	Effect of Thickness of Piezoelectric Layer on Resonance Frequency of Cantilever-Type MEMS Based Piezoelectric Energy Harvester	Conference Proceedings	ICMCC2015 by International Society for Scientific Research and Development at San diegio,USA
53.	Juhi Sharma, Ritu Sharma, Lalit Kumar Dusad	Review and Analysis of Photonic Crystal Beam Splitters for Optical	IEEE Xplore Digital Library, IEEE	International Conference on Green Computing and Internet of Things

		Communication Applications		(ICGCIoT 2015)
54.	Shanky Saxena, Ritu Sharma, B.D.Pant	Design and Development of Cantilever Type MEMS Energy Harvester	Conference Proceedings	International Conference on MEMS/Microelectronics by VDAT
55.	Anup Sharma, Ritu Sharma	Simulation Based Study of Band Gap Properties of Single Walled Nanotubes	IEEE Xplore Digital Library, IEEE	ICRCWIP_2014
56.	Ritu Sharma, Mayur Kumar Chhipa and Lalit Kumar Dusad	Investigation of Channel Drop Filter Based on Two Dimensional Photonic Crystal Structure	IEEE Xplore Digital Library, IEEE	ICRCWIP_2014
57.	Ritu Sharma, Ankur Saharia	An Approach for the Realisation of NAND, NOR, and and Gate Using Semiconductor Optical Amplifier and Band Pass Filter	IEEE Xplore Digital Library, IEEE	Computational Intelligence and Communication Networks (CICN-14)
58.	Ritu Sharma, Govind Kumar, Lalit Kumar Dusad	Investigation of Optical Wavelength Division De-Multiplexer Based on Two Dimensional Photonic Crystal Structure	IEEE Xplore Digital Library, IEEE	ICIIS2014
59.	Mohan Kumar Choudhary, Santosh choudhary, Ritu Sharma	Thermal Radiation Effects on MHD Flow and Heat Transfer Over an Unsteady Stretching Surface Embedded in a Porous Medium in the Presence of Heat Generation or Absorption	IEEE Xplore Digital Library, IEEE	ICFSA-2014
60.	Shanky Saxena, Ritu Sharma	Design of Piezoelectric Cantilever Based MEMS Structure	IEEE Xplore Digital Library, IEEE	ICDCCOM-2014
61.	Ritu Sharma, Anuradha Sharma, V. Sharma, Santosh C.	Hybrid Square Lattice Elliptical Air Hole Photonic Crystal Fiber With Doped Core	Conference Proceedings	2nd International Conference on Advances in Electronics and Computing by IRED at Zurich, Switzerland
62.	Anoop Sharma, Gaurav Sharma, Upendra Chaudry,	Analysis of Band Gap Properties of Different Structures	Conference Proceedings	ICATET-13

	Ritu Sharma	of Carbon Nanotubes		
63.	Ritu Sharma, Lalit Dusad	Design of Optical Band Pass Filter Exploiting Photonic Ring Resonator	Conference Proceedings	International Conference on Computational Electronics and Nanotechnology
64.	Ritu Sharma, Lalit Dusad	Design and Analysis of a Novel Two Dimensional Photonic Crystal Square Cavity Based Band Pass Filter	Conference Proceedings	ICRTCTA 2012

14. Detail of patents.

S. No.	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency / Country	Status

15. Books/Reports/Chapters/General articles etc.

S. No.	Title	Author's Name	Publisher	Year of Publication
1.	Wearable Antennas for Biomedical Applications	Ajay Kumar Singh Yadav, Mamta Devi Sharma, Namrata Saxena and Ritu Sharma	Wearable and Neuronic Antennas for Medical and Wireless Applications, Scrivener Publishing, Wiley	2022
2.	Design and Development of MEMS based Guided Beam Type Piezoelectric Energy Harvester	Shanky Saxena, Ritu Sharma, B. D. Pant	Springer	2021

16. Funded R&D Projects and Consultancy (FRDC) Work

Provide data for projects/consultancy of a minimum amount of Rs. 1 lakh.

Type of funding agency: national agency, state agency/ private sector, or the sponsoring trust/society.

Title	Funding Agency	From	To	Amount in lakhs	Role	Total CoPIs	Status
Design, Fabrication and Performance Evaluation of Flexible Piezoelectric Biomedical Energy Harvester	SERB (Power Grant), New Delhi	10-Nov-2022	09-Nov-2025	53.97	PI	1	Ongoing
Blood Flow detection	RTU Kota	22-06-	21-	2.40	Co-	2	Completed

and Monitoring Using Sensory Data	TEQIP-III	2021	06-2022		PI		
Detection of Heavy Metals in Water by nanosensor electrodes	RTU Kota TEQIP-III	18-06-2021	17-06-2022	12.32	Co-PI	3	Completed
Bandgap optimization of CNT thin film in VI/IR range for application of optoelectronics devices and Optical Antenna	RTU Kota TEQIP-III	18-06-2021	17-06-2022	8.12	Co-PI	3	Completed
Design and development of MEMS based piezoelectric energy harvester	DRDO, New Delhi	13-11-2017	12-11-2021	23.65	PI	2	Completed
Design and Simulation of cantilever type MEMS based piezoelectric energy harvester	IITM Kanpur	01-06-2016	31-05-2018	2.00	PI	1	Completed
New Architectures of elliptical airhole photonic crystal fiber for ultra flattened dispersion	DST Rajasthan	15-05-2013	15-05-2016	1.60	PI	1	Completed
Urdu corpus handwritten text recognition	DST Rajasthan	11-03-2013	10-03-2016	8.00	Co-PI	2	Completed

17. Any other Information (maximum 500 words)

I have supervised 8 Ph.D. dissertations including one in the field of MEMS based piezoelectric energy harvester which includes the designing, simulation and fabrication of piezoelectric energy harvester using the ZnO as the core sensing material, solar cells, synthesis of CNTs for electronic applications. I have also guided around 44 M.Tech thesis in the field of MEMS based sensors, Communication, photonics, superconductivity and nanotechnology.

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