

**RKDF University Bhopal**  
**Faculty Profile**



Basic Information				
<b>Name</b>	Dr. Virendra Singh Chaudhary			
<b>Date of Birth</b>	24/07/1974			
<b>Designation</b>	Professor			
<b>Department</b>	Electronics and Communication Engineering			
<b>Experience</b>	22 YEARS			
<b>Email ID</b>	virgwl@gmail.com			
<b>Contact No</b>	<b>8319971915</b>			
Educational Qualification				
<b>Description</b>	<b>Year</b>	<b>%</b>	<b>University</b>	
UG (B.E.)	2000	63.46%	GEC Rewa	
PG (M. E.) ECE	2004	65.56%	MITS Gwalior	
M. Phil	-	-	-	
Ph.D. (ECE)	2017		MANIT Bhopal (M.P.)	
Post Doctorate	-	-	-	
NET Qualified/ GATE	GATE-2000 and 2001	Qualified		
Experience Details				
Experience (Teaching / Research)	Designation	Duration		Name of Institute /University
		From	To	
Industry	Service Engineer	1 Jan 2001	28 Feb 2002	Aqua Tech Pvt. Ltd. Ne Delhi
Teaching	Lecturer	02 Feb 2003	02 Jan 2007	SRCEM, Gwalior (M.P.)
Teaching	Assistant Professor	9 <sup>th</sup> Jan 2010	19 <sup>th</sup> Feb 2013	IES College of Technology Bhopal (M.P.)
Teaching	Associate Professor	20 <sup>th</sup> Feb 2013	07 Nov 2016	RIRT, RGI, Bhopal (M.P.)
	Addi. Charge of Director	08 Aug 2016	07 Sept 2016	RIRT, RGI, Bhopal (M.P.)
Teaching and Research	Professor and Principal	01 June 2017	Till date	RKDF University, Bhopal (M.P.)
Publications				
<b>No.of Research Papers Published(Attach Annexure of Research papers published)</b>				<b>42</b>
<b>No. of Books Published</b>				<b>02</b>
<b>Books Chapters Published (Provide print of 1<sup>st</sup>Page of Book)</b>				
<b>No. of Patents Published/Grant</b>				<b>03</b>
Ph. D/M. Phil Project supervised				
Research Program	Award	Under Supervision	Name of University	
Ph.D (List is Attached)	08	10	RKDF University	
	Final viva Pending	01	RKDF University	
	RDC Pending	01	RKDF University	

<b>M. Phil</b>		
<b>PG Thesis/Dissertation</b>	03	<b>IES College</b>
<b>Area of Expertise(100 words)</b>		
<b>Communication System, Neural Network, Image Processing, and Smart Antenna</b>		
<p>Channel equalization plays an important role in wireless communication. The demand of wireless communication is increase day to day in terms of limited bandwidth, high data rate and maximum throughput. The process of wireless communication faced a problem of multi-path fading, due to this reason signal are distorted. The distortion of signal analyzed in the form of linear and non-linear. For the amplifying a distortion of signal used linear and non-linear channel equalizer. For the improvement of channel equalization used various neural network and optimization technique are used.</p> <p>For the improvement of channel equalization used MPNN neural network mode with optimization technique ant colony optimization. The ant colony optimization technique finds the difference of distorted and non-distorted on the behavior of artificial ants. The actual signal passes through MPNN neural network model noise interference is reduces.</p> <p>For the analysis of performance two more neural network models are also used one is PCNN and other is RBF neural network. The PCNN neural network model is a combination of static and dynamic group of neurons. And improved the capacity of channel equalizer.</p> <p>RBF neural network model is single layer perception neural network model. The processing of this model is very fast. Now reduces the complexity of channel equalizer and reduces the bit error rate during communication.</p> <p>Proposed a novel equalizer where a hybrid structure of four multi-layer neural networks acts as a classifier to classify the detected signal pattern. The neurons were embedded with teacher learning optimization algorithms. Simulation results prove the superior performance of the proposed equalizer.</p> <p>Proposed a cascaded support vector machines (CAS-SVM) for adaptive channel equalization. The CAS-SVM equalizer has the advantage of being able to be implemented with relatively low complexity and good performance.</p> <p>For the performance evaluation of MPNN filter for channel equalization try to improve the signal strength and reduces the dissipation of signal using TLBO method and cascading support vector machine. It find better result in compression of MPNN filter.</p>		
<b>Award and Achievement</b>		
<b>Name of Award</b>	<b>Description(With certified of Copy award)</b>	
<b>National</b>	<p>For Poster Presentation in JPIT, Guna, (M.P.) 2008  For CS-601 by TECHNO-SRIJAN 01<sup>st</sup> April 2014  Best Teacher Award at RKDF University, 15<sup>th</sup> Sept 2021  Academic Excellence Award at RKDF University, 5<sup>th</sup> Sept 2022</p>	
<b>Conference/Seminar/Workshops/FDP</b>		
<b>Description</b>	<b>No.</b>	
<b>Conference /Seminar Paper Presented</b>	<b>International Conference/Seminar Presented-06 National Conference Seminar attended -10</b>	
<b>Conference /Seminar attended/ organized</b>	<b>International Conference/Seminar attended-15 National Conference Seminar attended -26 National Conference Seminar Organised-04 Webinar attended-13</b>	
<b>Workshop attended /organized</b>	<b>Workshop attended-07 workshop organized-05</b>	
<b>FDP Attended/ organized</b>	<b>FDP Attended-20</b>	
<b>Research Project</b>		
<b>Name of Project</b>	<b>Funding Agencies</b>	<b>Amount</b>

**Any other Achievement** :Membership of Professional Bodies of India and Abroad: 01

## LIST OF PAPER PUBLICATIONS

1. Dr. Ratnesh Kumar Jain & Dr.Virendra Singh Chaudhary, “ Multi Label Health image Segmentation Model of MRI Using SVM Algorithm: A Review”, International Journal of Innovative Trends In Engineering (IJITE), Volume No.-76 Issue No-133 PP-01-06, Jan 2024, ISSN No-2395-2946, <https://www.ijite.com>, Published -Online
2. Dr. Ratnesh Kumar Jain & Dr.Virendra Singh Chaudhary, “ An Advanced Encryption Standard in FPGA Paradigms”, International Journal of Scientific Progress and Research(IJSPPR), Volume No.-82 Issue No-215 PP-01-04, Jan 2024, ISSN No-2349-4689, <https://www.ijsspr.com>, Published -Online
3. Sachin Bandewar, Virendra S. Chaudhary, “ Optimal direction of arrival estimation for digital beamforming using machine learning“, Journal of Integrated SCIENCE & TECHNOLOGY, VOLUME-12, Issue-3, pp-1-9, Jan 2024, ISSN No.- 2321-4635 visit us :DOI:[10.62110/sciencein.jist.2024.v12.771](https://doi.org/10.62110/sciencein.jist.2024.v12.771),
4. Maniram Ahirwar, Virendra Singh Chaudhary,” Advancing Wireless Connectivity: a Dual-Band Microstrip Antenna Enhanced by Hexagon Cell Reflector for Superior Gain and Directivity”, PIER M (Progress In Electromagnetics Research M), Volume No.-124 Issue No-215 PP-53-61, 15 Feb 2024, ISSN No-1559-8985, <http://www.jpier.org/PIERM/pier.php?paper=23082003>, [doi:10.2528/PIERM23122703](https://doi.org/10.2528/PIERM23122703),
5. Maniram Ahirwar, Virendra Singh Chaudhary, “Hexagon Shaped Coplanar Antenna for Higher Gain and Directivity”, MANIT, BHOPAL Date of Conference: 24-25 February 2024, Volume No.-76 Issue No-133 PP-01-06, 02 May 2024, DOI:10.1109/SCEECS61402.2024.10481995
6. Maniram Ahirwar, Virendra Singh Chaudhary,” Enhancing Antenna Performance: Exploring Partially Reflective Surfaces as Superstrates “, MANIT, BHOPAL Date of Conference: 24-25 February 2024, Volume No.-76 Issue No-133 PP-01-06, 02 May 2024, [DOI: 10.1109/SCEECS61402.2024.10482245](https://doi.org/10.1109/SCEECS61402.2024.10482245)
7. Dr. Ratnesh Kumar Jain & Dr.Virendra Singh Chaudhary, “An Extensive Literature Review on Microstrip Resonator filter”, Shodh Sangam-A RKDF University Journal of Science and Engineering, Volume No.-07 Issue No-01 PP-70-33, July-Aug 2024, ISSN No-2581-5806, [www.rkdf.ac.in](http://www.rkdf.ac.in), Published-on Line
8. Amy Alice Kujur, Maniram Ahirwar, Virendra Singh Chaudhary, “Efficient Energy Optimization Routing Protocol in Homogeneous Wireless Sensor Networks”, International Journal of Intelligent Systems and Applications in Engineering, Volume-12, Issue-23, pp-2215-2225, July-2024, ISSN No-2147-6799, [www.ijisae.org](http://www.ijisae.org),
9. Amy Alice Kujur, Maniram Ahirwar, Virendra Singh Chaudhary, “Energy Efficient Cluster-Based Routing protocol for Wireless Sensor Network Using Hybrid Bi-Inspired Swarm Intelligence, International Journal of Intelligent Systems applications in Engineering, Volume-12, Issue-23, pp-2247-2225, Oct-2024, ISSN No-2147-6799, [www.ijisae.org](http://www.ijisae.org),
10. Yogesh Mishra & Virendra Singh Chaudhary, “ Spectrum Sensing in Cognitive Radio for Internet of Things using Deep Learning Models “, SAMRIDDHI, Volume No.-15 Issue No-01 PP-, 2023, ISSN No- Print ISSN: 2229-7111 Online ISSN: 2454-5767, DOI: 10.18090/samriddhi.v15i01.04.
11. Yashmeet Kaur Reel & Dr. Virendra Singh Chaudhary,” Classification of Agriculture Diseases Using Image Processing Techniques-A Review”, Journal of Aeronautical Materials, Volume No.-64 Issue No-01 PP-670-689, Jan 2023, ISSN No-1005-5053, <https://www.hkclxb.cn/article/view/2023/596.html> , SCOPUS JOURNAL
12. Yashmeet Kaur Reel & Dr. Virendra Singh Chaudhary,” Automatic recognition and classifying of plant leaf diseases using image segmentation”, Shodhsamhita:Journal of fundamental & comparative Research (Journal of Kavikulaguru Kalidas Sanskrit University, Ramtek) Volume No.-VII Issue No-02(XXXV) PP-05-12, 2023, ISSN No-2277-7067, UGC CARE listed Journal
13. Yashmeet Kaur Reel & Dr. Virendra Singh Chaudhary,” A review of the literature on:-The automatic identification and classification of agricultural diseases using image Processing”, International Journal of Electrical and Electronics Engineers Volume No.-15 Issue No-01 PP-1-12, Jan-June 2023, ISSN No (O)-2321-2055 ISSN (P)-2321-2045

14. Sachin Bandewar & Virendra Singh Chaudhary, "Design and Analysis of Smart Antenna for Mobile Application",
15. SAMRIDDI-A Journal of, Volume No.-15 Issue No-01 PP-1-9, 2023, ISSN No- Print ISSN: 2229-7111 Online ISSN: 2454-5767 visit us : [www.smslucknow.com](http://www.smslucknow.com), UGC CARE-1 JOURNAL. DOI: 10.18090/samriddhi.v15i01.00
16. Dr. Ratnesh Kumar Jain & Dr. Virendra Singh Chaudhary, "Comparative Analysis of MIMO System by Using Signaling Condition for wireless Communication System", Shodh Sangam-A RKDF University Journal of Science and Engineering, Volume No.-06 Issue No-04 PP-26-33, July-Aug 2023, ISSN No-2581-5806, [www.rkdf.ac.in](http://www.rkdf.ac.in), Published -Online
17. Dr. Ratnesh Kumar Jain & Dr. Virendra Singh Chaudhary, "Analysis of MIMO System under Different Signaling condition Communication System", Shodh Sangam-A RKDF University Journal of Science and Engineering, Volume No.-06 Issue No-05 PP-36-44, Sept-Oct 2023, ISSN No-2581-5806, [www.rkdf.ac.in](http://www.rkdf.ac.in), Published -Online
18. Maniram Ahirwar & Virendra Singh Chaudhary, "A Novel Square Array Reflector Plate Equipped Mushroom Cloud Patch Antenna", PIERC (Progress In Electromagnetics Research, C), **Volume No.-138 Issue No-01 PP-65-78, 02 Oct 2023, ISSN No-1559-8985, Impact Factor-20-22 -6.7** <http://www.jpier.org/PIERC/pier.php?paper=23082003>, doi:10.2528/PIERC23082003,
19. Dr. Ratnesh Kumar Jain & Dr. Virendra Singh Chaudhary, "Comprehensive Analysis of Microstrip filter: Review", Shodh Sangam-A RKDF University Journal of Science and Engineering, Volume No.-06 Issue No-06 PP-70-76 Nov-Dec 2023, ISSN No-2581-5806, [www.rkdf.ac.in](http://www.rkdf.ac.in), Published -Online
20. Yogesh Mishra, Dr. Virendra Singh Chaudhary & Dr. Ratnesh Kumar Jain, "Adaptive Feature Fusion for Missing Spectrum-Data Recovery in Cognitive IoT Networks", International Journal of Engineering Research (IJER), Volume No.-12 Issue No-4 PP-104-110, Dec 2023, ISSN No-2319-6890, <https://ijer.in/publication/v12/021.pdf>, Published -Online
21. Akant Kumar Raghuvanshi & Dr. Virendra Singh Chaudhary "Comparative analysis of Energy Efficient Routing Protocol over WSN" Nagpur, India, Date of Conference: 26-27 November 2021, Volume No.- Issue No- PP-, 07 Feb 2022, ISSN No- ISBN Information: Electronic ISBN:978-1-6654-2040-2 Print on Demand (PoD) ISBN:978-1-6654-2041-9, DOI: 10.1109/ICCICA52458.2021.9697151
22. Mahesh Shankar Pandey & Dr. Virendra Singh Chaudhary, "REULEAUX Triangle Shaped MSPA for 5G and WLAN Applications", International Journal of Electrical and Electronics Research (IJEER), VOLUME- 9, Issue-4, pp:107-111, Jan 2022, ISSN No.2347-470X. SCOPUS JOURNAL, doi.org/10.37391/IJEER.090403, [www.ijeer.forexjournal.co.in](http://www.ijeer.forexjournal.co.in) /<https://ijeer.forexjournal.co.in/archive/volume-9/ijeer-090403.html>
23. Balaji Sharma & Dr. Virendra Singh Chaudhary, "Channel Estimation and Equalization Using FIM for MIMO-OFDM on Doubly Selective Faded Noisy Channels, ECTI TRANSACTIONS ON ELECTRICAL ENGINEERING, Volume No.-20 Issue No-01 PP-74-82, Feb 2022, ISSN No-2306-708X, Published -Online SCOPUS JOURNAL. <https://creativecommons.org/licenses/by-nc-nd/4.0/>.
24. Poonam Shukla & Virendra Choudhary, "Dual Probability-based energy efficient clustering protocol in wireless sensor Network", Stochastic Modeling & Applications (UGC Care Approved Journal)-Special issue on Innovative Research in Management, Applied Science and Engineering, VOLUME-26, Issue-03 pp: 429-437, 05 July 2022, January-June- Special Issue 2022 Part-08, ISSN No. 0972-3641, UGC CARE-1 JOURNAL.
25. Poonam Shukla & Virendra Choudhary, "Optimized Utilization of Energy Using Particle Swarm Optimization in Wireless Sensor Network", Stochastic Modeling & Applications (UGC Care Approved Journal)-Special issue on Innovative Research in Management, Applied Science and Engineering, VOLUME-27, Issue-04 pp: 438-445, 05 July 2022, January-June- Special Issue 2022 Part-09, ISSN No. 0972-3642, UGC CARE-1 JOURNAL.
26. Mahesh Shankar Pandey & Dr. Virendra Singh Chaudhary, "Defected Star-Shaped Microstrip Patch Antenna for Broadband Applications", Progress In Electromagnetics Research C, VOLUME- 118, Issue-4, pp:11-24, 05 July 2022, ISSN No.1937-8718, SCOPUS JOURNAL
27. Akant Kumar Raghuvanshi & Dr. Virendra S. Chaudhary, "Energy Efficient Medium Access Control (MAC) Layer Protocol for Wireless Sensor Network", Samriddhi -JPSET, has been accepted for

28. Akant Kumar Raghuvanshi & Dr. Virendra S. Chaudhary, "Relative Entropy Based Energy Efficient Multi-Hop Forwarding Routing Protocol for WSN", Samriddhi –JPSET, has been accepted for publication, VOLUME-14, Issue-4, pp-, 05 July 2022, ISSN No.-\_\_2454-5767 visit us : [www.smslucnow.com](http://www.smslucnow.com), UGC CARE-1 JOURNAL.
29. Sachin Bandewar & Virendra Singh Chaudhary, "Smart Antenna Design For Mobile Application" i-manager's Journal on Mobile Applications & Technologies (JMT), VOLUME-9, Issue-2, pp-, Nov-Dec 2022, ISSN No.- 2350-1413 visit us : [www.smslucnow.com](http://www.smslucnow.com), UGC CARE-1 JOURNAL. DOI: 10.18090/samriddhi.v14i03.05
30. Ratnesh Kumar Jain & Dr. Virendra, Singh Chaudhary, "MACHINE Learning Based Frequency REUSE and BEAMFORMING for MASSIVE MIMO System" Wesleyan Journal of Research (An International Research Journal, VOLUME- 30, Issue-1, May 2021, ISSN No.0975-1386. UGC Care-I.
31. Balaji Sharma & Dr. Virendra Singh Chaudhry "Channel Estimation Using Frequency Index Modulation for MIMO- OFDM" The Maharaja Sayajirao University of Baroda, VOLUME- 55, Issue-1(I), pp: JUNE 2021, ISSN No.0025-0422. UGC Care-I.
32. Ratnesh Kumar jain & Dr. Virendra Singh Chaudhary, "Performance Analysis Of MIMO System Under Different Signaling Condition", Solid State Technology, Volume No.- 64 Issue No-01 PP-670-689, 13 July 2021, ISSN No-0038-111X, [www.solidstatetechnology.us](http://www.solidstatetechnology.us) .
33. Balaji Sharma & Dr. Virendra Singh Chaudhry, "Channel Estimation Using Frequency index Modulation (FIM) for MIMO-OFDM on Doubly Selective Faded Noisy Channels, International Journal of Information Technology and Electrical Engineering ECTI TRANSACTIONS ON ELECTRICAL ENGINEERING, Volume No.-10 Issue No-03 PP-, 01 June 2021, ISSN No-2306-708X, Published -Online SCOPUS JOURNAL. <https://creativecommons.org/licenses/by-nc-nd/4.0/>.
34. Ratnesh Kumar Jain & Dr. Virendra Singh Chaudhary, "MPSO Based Frequency REUSE and BEAMFORMING for MASSIVE MIMO", The Maharaja Sayajirao University of Baroda, VOLUME- 55, Issue-1(V), 2021, ISSN No.0025- 0422. UGC Care-I.
35. Mahesh Shankar Pandey & Dr. Virendra Singh Chaudhary "Design of Wideband Monopole Squire Microstrip patch Antenna: Review" in International Journal of Emerging Technology and Advance Engineering (IJETA) VOLUME-9, Issue-6, pp: 128-133, JUNE 2019, ISSN No.2250-2459. SCOPUS JOURNAL
36. Ratnesh Kumar Jain & Dr. Virendra Singh Chaudhary "Study and Analysis of Frequency Reuse for MU Massive MIMO Systems" in Shodh Sangam Journal (A RKDF University Journal of Science & Engineering ) under consideration in UGC-approved Journal V OLUME-2, Sept-19 ISSN No.2581- 5806,
37. Mahesh Shankar Pandey & Dr. Virendra Singh Chaudhary "Quad Rhombus Pinwheel Shaped Microstrip Patch Antenna" in International Journal of Scientific Progress and Research (IJSPR), Issue-6, pp: 20-26, JUNE 2020, ISSN No. 2349-4689.
38. Virendra Singh Chaudhary & Dr . Madhu Shandilya "Channel Equalization using Weiner filter" in IJSET (International Journal of Scientific Engineering and Technology) VOLUME-2, ISSUE-6, 1 JUNE 2013, ISSN 2277-1581
39. Virendra Singh Chaudhary & Dr. Madhu Shandilya "Channel Equalization in Communication System Using Weiner Filter and Neural Network" in IJER (International Journal of Engineering Research), Volume No.2, Issue No. 8, pp :502-508, 1 DEC 2013. ISSN 2319-6890
40. Virendra Singh Chaudhary "Optimal Channel Equalization using Teacher learning based optimization Technique for MPNN" in EUSRM (Engineering Universe for Scientific Research and Management) VOLUME-6, ISSUE -1, Jan 2014. ISSN 2319-3069.
41. Virendra Singh Chaudhary "Adaptive Channel Equalization Using Cascaded Support Vector Machine for Rayleigh Faded Channel" in EUSRM (Engineering Universe for Scientific Research and Management) VOLUME-6,ISSUE-1,Jan 2014 ISSN 2319-3069.
42. Balaji Sharma & Dr. Virendra Singh Chaudhary "A Study of Spectrum Sensing Based Channel Estimation for MIMO- OFDM Over Noisy Channel" in Shodh Sangam Journal (A RKDF

University Journal of Science & Engineering ) under consideration in UGC approved Journal VOLUME-1, Issue -Special Issue, pp: 42-47, August 2018, ISSN No.2581- 5806

43. Akant Kumar Raghuwanshi & Dr.Virendra Singh Chaudhary “Energy Efficient Probabilistic Routing over Sensor Network: Survey” in Shodh Sangam Journal (A RKDF University Journal of Science & Engineering ) under consideration in UGC approved Journal, Volume No-1, Issue- Special Issue, pp : 38-41, August 2018

### **Papers Presented / Participated in National Conferences:**

- [1] Participated in a National Seminar on “EMERGING TRENDS IN CONTROL AND COMMUNICATION”, Organized on 24-25 March 2006 by SRCCEM, Banmore (Gwalior) M.P.
- [2] Presented Paper in a National Level Technical Conference on “TECHNO VISION 2007” Organized By by Shri Shankaracharya college of Engineering & Technology, Bhilai-490020, Chhattisgarh (India). on 26-27 October 2007\*
- [3] Presented Paper in a National Seminar on “ADVANCEMENT IN ELX & COMM. WITH SPECIAL THEEME ON NANO TECHNOLOGY” Organized on 02-03 December 2007, Scope College of Engg. Bhopal-462026 , M.P.(India).
- [4] Presented Paper on “ Analogy of Neural Network with Human Brain” in a National Conference on “SCIENTIFIC AND ENGINEERING COMPUTATIONS-2008” Organized by College of Engineering, 21-22 FEBRUARY 2008 Osmanabad- Maharashtra State (India) Pin-413501
- [5] Participated in a National Conference on “ COMMUNICATION SYSTEMS AND NETWORKING” Organized on 15-16 March 2008, in Jaypee Institute of Engineering and Technology, Guna, M.P.
- [6] Participated in National Seminar on “ADVANCES IN WIRD AND WIRELESS COMM-08” Jointly Organized by IETE LOCAL Centre Bhopal (M.P. & C.G.) and Barkatullah University, Bhopal On 26<sup>th</sup> and 27<sup>th</sup> APRIL 2008.
- [7] Participated in National Seminar on “ADVANCES IN WIRD AND WIRELESS COMM-08” Jointly Organized by IETE LOCAL Centre Bhopal (M.P. & C.G.) and Barkatullah University, Bhopal On 26<sup>th</sup> and 27<sup>th</sup> APRIL 2008.
- [8] Participated in National Seminar on “ADVANCEMENTS IN THE TECHNICAL INDUSTRY (SLCATI)” Organized by Lakshmi Narain College of Technology, Bhopal ,M.P. dated on 16<sup>th</sup> & 17<sup>th</sup> May 2009.
- [9] Participated in AICTE Sponsored National Seminar on “Mobile Communication ” Organized by EC Department Of IES College of Technology, Bhopal (M.P.) India, On 26<sup>th</sup> April 2010 to 27<sup>th</sup> ss April 2010.
- [10] Paper Presented In One Day National Seminar on “Fundamental of Mechatronics: A Future Scope in Electronics and Communication Engineering” Dated Feb 01 2012 Organize by The Institution of Electronics and Telecommunicatin Engineers at IETE Center Bhopal, on ISF Day.
- [11] Presented Paper on “Reducing ISI Impairments In Communication System Using Channel Equalizer” Organized by MPCST Sponsored National Seminar on “Mixed Signal VLSI Design” Department of Electronics and Communication Engineering Sri Satya Sai Institute of Science and Technology, Sehore MP, 20th - 21th July 2012.

- [12] **Participated in National Seminar on "MATLAB & Simulink for Engineering Education" Organized by MathWorks (Bhopal Chapter) dated 22<sup>nd</sup> Aug 2012.**
- [13] **Participated in National Seminar on "Role of Non-Conventional Energy Sources of Sustainable Energy Security" Organized by Indian Institution of Industrial Engineering (Bhopal Chapter) dated 1<sup>st</sup> Oct 2012.**
- [14] Participated in Two Days National Seminar, " IETE Zonal Seminar " Future communication Network and Challenges in Military " dated on 22th - 23rd January 2013
- [15] Participated in Two Days National Seminar, "EPCO Bhopal, Sponsored By National Seminar on "Climate Change:Mitigation Strategies in Agriculture and Energy Sectors" dated on 19th - 20rd Dec 2017 RKDF University Bhopal MP (India)
- [16] Participated in Three Days National Seminar, ON " Climate Change" Organized by State Knowledge Management Centre, department of Environment Government of Madhya Pradesh, dated 22-23 March 2018.
- [17] Participated in One Days National Seminar, ON "Conduct by Appin technology Lab Bhopal, National Seminar on E-commerce & Cyber Security Challenges In Digital India, dated on 26th Sept 2018, Faculty of Commerce, RKDF University Bhopal MP (India)
- [18] Participated in One Days National Seminar,ON " National Symposium on Cyber Security & Challenges In Digital Economy " dated On 25th Sept 2019 at Faculty of Law, RKDF Univeristy Bhopal MP (India)
- [19] Participated in One Day National Seminar ,ON, " Implementation of National Education Policy 2020 in Higher Education Institute: Challenges & Opportunities ",Held on 1sr Nov 2021 Organized by Internal Quality Assurance Cell, Pepole's University, Bhopal.
- [20] Mahesh Shankar Pandey & Dr.Virendra Singh Chaudhary, Participated in Two Days National Conference, ON, "IETE National Conference on "VLSI, Communication and Signal Processing" NCVCS 2021- 27th to 28th November 2021", Compact Vacuum Cup Shaped MSPA for ISM, Bluetooth and WLAN, dated on 27th to 28th November 2021 Organized by IETE and MANIT Bhopal
- [21] Participated in Three Days National Seminar on "Constitution of India and Indian Judicial System" dated on 26-29 Nov 2022, Organize by Law Department of RKDF University, Bhopal.
- [22] Participated in Two Days National Conference, ON, " MPCST Sponsored National Conference on Contemporary Technological Solutions towards fulfilment of Social Needs ",Comparative Analysis of Mircostrip Antenna for Gain and Directivity Improvement dated on 03-04 March 2023 Organized by RKDF, Bhopal.
- [23] Participated in Two Days National Conference, ON, " MPCST Sponsored National Conference on Contemporary Technological Solutions towards fulfilment of Social Needs ",A Literature Survey-Automatic Detection and Classification of agricultural diseases by Image processing dated on 03-04 March 2023 Organised by RKDF, Bhopal.
- [24] Participated in Two Days National Conference, ON, " MPCST Sponsored National Conference on Contemporary Technological Solutions towards fulfilment of Social Needs ",Spectrum sensing in 5G IOT network using machine learning dated on 03-04 March 2023 Organised by RKDF, Bhopal
- [25] Participated in One Day National Conference, ON, " Jointly Organize by The National Academy of Science India (NASI), Bhopal and Faculty of Science of RKDF University Bhopal " ,Current Advancement in a Era of Biotechnology on 31 March 2023 Organized by RKDF,

Bhopal

- [26] Participated in One Day National Sminar,ON, “ MATLAB & Simulink role in Embracing AI in Engineering : Industry, Academia and Upskilling for for Success” 22<sup>nd</sup> Sept 2023 Organized by ARK & MathWorks in Association with SGSITS-Indore

### **Papers Presented /Attended in International Conferences:**

- [1] Jointly (Akant Kumar Raghuwanshi & Dr.Virendra Singh Chaudhary) Participated in a International **Conferences** on “Contemporary Technological Solutions towards fulfilment of Social Needs”, Organized on 31th August 2018 by RKDF University, Bhopal Gandhi Nagar, Bhopal MP
- [2] Jointly (Balaji Sharma & Dr.Virendra Singh Chaudhary) Participated in a International **Conferences** on “Contemporary Technological Solutions towards fulfilment of Social Needs”, Organized on 31th August 2018 by RKDF University, Bhopal Gandhi Nagar, Bhopal MP.
- [3] Jointly (Ratnesh Jain & Dr.Virendra Singh Chaudhary) Participated in a Two days International **Conferences** on “Contemporary Technological Solutions towards fulfilment of Social Needs”, Organized on 28-29th SEPT 2019 by RKDF University, Bhopal Gandhi Nagar, Bhopal MP.
- [4] Jointly (Balaji Sharma & Dr.Virendra Singh Chaudhary) Participated in a Two days International **Conferences** on “Contemporary Technological Solutions towards fulfilment of Social Needs”, Organized on 28-29 Sept 2019 by RKDF University, Bhopal Gandhi Nagar, Bhopal MP.
- [5] Dr.Virendra Singh Chaudhary Attended Two days International **Conferences** on “Recent Advance in Smart Innovative Ideas with Multidisciplinary Research (IC-RASIMR-2019)”, Organized on 30<sup>th</sup> Nov to 01 Dec 2019 by RKDF University, Bhopal Gandhi Nagar, Bhopal MP. RKDF Bhopal in Association with Research Foundation of India.
- [6] Mahesh Shankar Pandey & Dr.Virendra Singh Chaudhary,” Quad Rhombus Pinwheel Shaped Microstrip Patch Antenna “ Participated in a Two Days, 1st International Conference on Latest Trends in Electronics and Communication Engineering (ICLTECE-2020) , Organized on 5-6 Sept 2020 by BGSIT, **Karnataka, INDIA**
- [7] Poonam Shukla & Dr.Virendra Singh Chaudhary,” Particle Swarm Optimization-based energy clustering protocol (PSO-EEC)-A Review “ Participated in a Two Days, 3rd IEEE International Conference on Emerging Smart Computing & Informatics (IEEE-ESCI 2021), dated-5th -7th March 2021erence on Latest Trends in Electronics and Communication Engineering (ICLTECE-2020) , Organized by All India Shri Shivaji Memorial Society’ Institute of Information Technology, Pune.
- [8] Akant Kumar Raghuwanshi & Dr.Virendra Singh Chaudhary,” Comparative analysis of Energy Efficient Routing Protocol over WSN “ Participated in Two Days International Conferences on “2021 IEEE International Conference on Computational Intelligence & Computing Application (IEEE-ICCICA-21),ical , Organized on 26th & 27h Nov 2021 by GH Raisoni College of Engineering, Nagpur, Technically Supported By IEEE Bombay Section
- [9] Poonam Shukla & Dr.Virendra Singh Chaudhary,” Performance Analysis of Optimized Utilization of Energy Using Particle Swarm Optimization in Wireless Sensor Network” Participated in a Two Days, International Multidisciplinary Conference on Research, Technology & Engineering), dated-7th & 8th April 2022, y Organized by KJEl’s Trinity Academy of Engineering,

- [10] Yashmeet Kaur Reel & Dr.Virendra Singh Chaudhary “Automatic recognition and classification of agricultural diseases by Digital Image Processing- A literature survey” Participated in a Two Days, International Multidisciplinary Conference on Research, Technology & Engineering), dated-7th & 8th April 2022 on Latest Trends in Electronics and Communication Engineering (ICLTECE-2020) , Organized by KJEI’s Trinity Academy of Engineering, Pune Maharashtra.
- [11] Mr.Yogesh Mishra & Dr.Virendra Singh Chaudhary “Spectrum Sensing Using Deep Learning for Cognitive Radio for Internet of Things” Participated in a One Day, Impact of Science , Engineering and Technology Advancements In Humanities, Management, Medi calm and Nursing Sciences.", dated-19th Nov 2022 in Electronics and Communication Engineering, Organized by TJPRC Pvt. LTD.
- [12] Mr. Sachin Bandewar & Dr.Virendra Singh Chaudhary " An analysis of Smart antennas for mobile application ” Participated in a One Day, International Conference on Advance Research Tools Techniques for Multidisciplinary Research Design .", dated-09th & 10th Dec 2022 in Electronics and Communication Engineering, Organized by. Eduoxia Research University-USA and Eudoxia Research Center India In Collaboration with Department of periodontology ,Rama Dental College Hospital and Research Center Rama University, UP, India and Franklin International Business School Nigeria, ERU/MRD/2022/12/PC/1434
- [13] Maniram Ahirwar & Dr.Virendra Singh Chaudhary " Improved Gain and Directivity in Wireless Micro strip Antenna with Ring Reflector” Presented in a Three Day, International Conference i.e. 38-Indian Engineering Congress ", dated-27<sup>th</sup>- 29th Dec 2023 in Electronics and Communication Engineering, Organized by. The Institution of Engineers (India),Established 1920, Incorporated by Royal Charter 1935,A Century of Service to the Nation, 38 Indian Engineering Congress at Hotel Royal Orbit, Jabalpur, IEC 2023 TV / 023 ,
- [14] Maniram Ahirwar & Dr.Virendra Singh Chaudhary " Hexagon Shaped Coplanar Antenna for Higher Gain and Directivity” Participated in a Two Day, 9th IEEE International Students’ Conference on Electrical, Electronics and Computer Science SCEECS 2024, dated-24th & 25th Feb 2024, in Electronics and Communication Engineering, Organized by. IEEE Student Branch. MANIT, Bhopal ,at MANIT Bhopal MP , Paper ID-368
- [15] Maniram Ahirwar & Dr.Virendra Singh Chaudhary " Enhancing Antenna Performance: Exploring Partially Reflective Surfaces as Superstrates” Participated in a Two Day, 9th IEEE International Students’ Conference on Electrical, Electronics and Computer Science SCEECS 2024, dated-24th & 25th Feb 2024, in Electronics and Communication Engineering, Organized by. IEEE Student Branch. MANIT, Bhopal ,at MANIT Bhopal MP , Paper ID-574.

## List of Faculty Development Programme attended

Sr. No.	Program Name	Program Title Name	Date of Program	No of Days	Organizer and sponsored of Program	Venue of Programme	Online/ Offline
01	Staff Development Program (SDP)	FPGA	10-25 March 2010	15	EC Dept IES Group of Institutions, Bhopal	IES Group	offline
02	SDP	"Advance Power Electronics & Real Time Digital Controller (Under TEQIP)"	04-08 June 2012	One Week	Electrical Engg. Dept	MANIT, Bhopal	offline
03	Short Term Training Programme (STTP)	"Antenna Design, Testing and Electromagnetic Analysis(Under TEQIP)"	(05 to 06 July 2012)	Two Days	EC Dept	MANIT, Bhopal	offline
04	Self Financing Short Term Training program	Circuit Simulation and Modeling(CSM-2016)	27 <sup>th</sup> – 1 <sup>st</sup> July 2016	Five Days	Electronics and Communication Engg Dept, MANIT Bhopal	MANIT Bhopal`	
05	Self Financing Short Term Training program	Optical communication & Technologies (OCT-2016)	27 <sup>th</sup> –18 <sup>th</sup> March 2016	Three Days	Electronics and Communication Engineering Department, MANIT Bhopal	MANIT Bhopal`	
06	Faculty Development Program	Refrigeration & Air Conditioning	13 <sup>th</sup> -17 <sup>th</sup> Nov 2017	One Day	Mechanical department UIT RGPV, Bhopal	RGPV, Bhopal	
07	FDP	Techniques for material Characterization	20 <sup>th</sup> -24 <sup>th</sup> Nov 2017	Five Days	School of Nanotechnology RGPV Bhopal	RGPV, Bhopal	
08	Faculty Development Program- Student Induction(FDI-SI)	AICTE Student Induction Program	11 <sup>th</sup> - 13 <sup>th</sup> June 2018	Three Days	AICTE, Bhopal	RGPV, Bhopal	
09	Faculty Development Programme	Recent Advance in Machine Learning	3 <sup>rd</sup> -7 <sup>th</sup> Oct 2018	Five Day	School of Information Technology, UTD-RGPV, Bhopal	RGPV, Bhopal	Offline
10	FDP	"Introduction to Forensic Science and Digital & Cyber Forensics"	15-19 May 2020	One Week	Nagpur Institute of Technology, Nagpur Department of Information Technology, in Association with Department of Forensic Science	Nagpur	Online
11	Faculty Development Programme	Recent Trends in VLSI Design	22nd-26th June 2020	Five Days	EC Department, LNCT, Bhopal		Online
12	FDP	Interdisciplinary Research: Need and Relevance in Science and Technology	1-5 Sept 2020	One Week	RKDF University, Bhopal	RKDF University	Online
13	All India Council for Technical Education	Data Science	7-11 Sept 2020	One Week	AICTE New Delhi	School of IT, RGPV	Online

	Training And Learning (AICTE-TAL) ATAL						
14	STTP	The Role of IoT in Renewable Energy Sources Driving Electrical power Grids	18-23 Jan 2021	One Week	New Horizon College of Engineering Bengaluru	Department of EX Engg	Online
15	FDP	Modern Cryptography, Blockchain & IoT Security: Challenges, Solution and Future (MCB-IoT)	23-27 March 2021	One Week	RGPV Bhopal	Department of CSE UIT-RGPV	Online
16	FDP	Implementation of NEP-2020 in Higher Education	Feb 17-22 2022	One Week	RKDF University and Supported by MCE		Online
17	FDP	Full stack Application Development with MS Azure Cloud	4-9 Sept 2023	One Week	Microsoft ,Sap & AICTE Tech Saksham	Tech Saksham	Online
18	FDP	AI & Cloud: Workshop on Responsive AI in the Cloud: Leveraging Generative Power in the Cloud	18-22 Sept 2023	One Week	Microsoft ,Sap & AICTE Tech Saksham	Tech Saksham	Online
19	FDP	Building Advanced Data Analytics Applications with Cloud under Next Gen Employability Program	16-20 Oct 2023	Five Days	Edunet Foundation	AICTE	Online
20	FDP	A comprehensive Exploration of Cognitronics by Unraveling Technologies	06-10 Feb 2024				

## Details of PhD Students guided/ continuing:

S No.	Name of Students & Enrollment Number	Registration Number	Title of Dissertation	Year of award / RDC Done
01	Poonam Shukla 010415ET014	RKDF/Ph.D/E &T/ECE/2016-01	Improved Energy Efficient Modelling for WSN Using Adaptive Clustering Hierarchy	Awarded
02	Ratnesh Jain 010617ET010	RKDF//PhD/E&T/ECE//2018/02	Performance Enhancement of MIMO for Next Generation Wireless System	Awarded 21/12/21
03	Mahesh Shankar Pandey 010617ET011	RKDF//PhD/E&T/ECE//2018/03	Design and Simulation of Microstrip Patch Antenna for Broadband Application	Awarded 29/12/22
04	Akant Kumar Raghuwanshi (010617ET012)	RKDF//PhD/E&T/ECE//2018/04	Power Aware Routing Protocol for Enhancing Life Time of Wireless Sensor Network	Awarded 07/01/23
05	Balaji Sharma 010617ET013	RKDF//PhD/E&T/ECE//2018/05	AI Based Performance Enhancement in Communication System	Awarded 25/01/22
06	Sachin Babdewar 010718ET023	RKDF//PhD/E&T/ECE//2018/05	Design and Analysis of smart antenna for mobile application	Awarded
07	Yogesh Mishra 010718ET024	RKDF//PhD/E&T/ECE//2018/05	Spectrum Sensing using Deep Learning for Cognitive Radio for Internet of Things	Awarded
08	Yasmeet Kaur Reel 010920ET010	RKDF/PhD/E&T/ECE/2021-01	"Image Segmentation technique for automatic detection and classification of agricultural diseases using matlab"	Awarded 30/04/2024
09	Mr. Maniram Ahirwar 010920ET023	RKDF//PhD/E&T/ECE//2021-02	"Design and Development of Microstrip Patch Antenna with Improved Gain & Directivity Using Reflector Plate "	Submitted
10	Amy Alice Kujur 011324ET007	RKDF//PhD/E&T/ECE//2024		RDC Pending