

Dr. Pushpalata Pujari

Associate Professor

Dept of Computer Science and Information Technology (CSIT),

GGV, Central University, Bilaspur, (C.G)

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Educational Qualifications:

- i. B.Sc. (Physics(hons), Chemistry and Mathematics) – Berhampur University, Berhampur, Odisha.
- ii. M.C.A. – Berhampur University, Berhampur, Odisha.
- iii. Ph.D – Guru Ghasidas Vishwavidyalaya, Bilaspur, C.G

Other Academic Achievement: (1999) UGC-NET qualified in Computer Science & Application.

Teaching Experience: Working as an Assistant Professor in CSIT department since September 2005.

Research Area: Machine Learning, Deep Learning, Soft Computing, Image Processing and Evolutionary computing

Research Publication

1. **(2005-06) “Role of Communication Technology in Rural Development”**, National Conference on Cyber Security, Data Mining and ICT for the Society, 18-19 Jan, 2006, Organized by Department of CSIT, GGV, Bilaspur, C.G.
2. **(2005-06)** Participated in the five-day workshop on “Gender Equity Through Entrepreneurship Development” during 16 th May – 20th May 2006, Organized by Women Studies and Development Centre, GGV & Ministry of small-scale industries, Govt of India.
3. **(2006-07)“ ANFIS based sliding mode controller design for controlling the structure vibration”** , National Conference on Data Mining and E-Governance , Organized by Department of CSIT, GGV, Bilaspur, 17th February, 2007 **(Presented)**.
4. **(2007-08) “Adaptive Neuro Fuzzy System (ANFIS) based sliding mode controller Design for Controlling the Structure Vibration”**, Tenth Conference on International Academy of Physical Science CONIAPS-X), **International conference**, January 12-14, 2008. **(Presented)**

5. **(2010-11)**“A comparative study of Decision tree based data mining algorithm and its ensemble method for classification of data” ,Proceeding of **international conference** on Emerging trends in soft computing and ICT (SCICT-2011) ,(pp:41-44),Organized by Dept of CSIT,GGV ,Bilaspur, India on 16-17 March 2011, **ISBN: 978-81-920913-3-4.(Full Paper in Conference Proceedings & Presented)**
6. **(2011-12)** “Environmental knowledge based system for Framing Policies “, **National seminar** on “Emerging techniques in computer science”, on 22-23 November, 2011 ,Organized by Kalyan P.G College, Bhilai Nagar(C.G)(**Presented**)
7. **(2011-12)** “Prediction of political party from US house of representative votes by using different data mining algorithm” ,**National seminar** on “Emerging techniques in computer science”, on 22-23 November,2011,Organized by Kalyan P.G College, Bhilai Nagar(C.G)(**Presented**)
8. **(2011-12)** “Feature Selection & Performance analysis of logistic regression, SVM, and Neural network classifiers” **National seminar** on “Green technology in Computer science & Engineering and IT, on 20-21 January, 2012 ,Organized by CSIT, Durg (C.G)(**Presented**)
9. **(2011-12)** “Data Mining Techniques for Environmental Issues” ,**National seminar** on 20-21 January, 2012“Green technology in Computer science & Engineering and IT, Organized by CSIT, Durg (C.G)(**Presented**)
10. **(2011-12)** “Fusion of Vocational Education & E-learning to develop Technical Skills” **National seminar** on “Role of Universities in skill development and vocational Education” on 10-11 February, 2012 ,Organized by C.V.Raman University, Bilaspur (C.G)(**Presented**)
11. **(2011-12)** “Analysis to need for technical vocational education (TVE) using ICT: The nations education initiatives for Indian educations and employers perspectives.” **National seminar** on “Role of Universities in skill development and vocational Education” on 10-11 February, 2012 ,Organized by C.V.Raman University, Bilaspur (C.G)(**Presented**)
12. **(2011-12)** “Information Communication Technology and Skill development in educational sector “**National seminar** on “Role of Universities in skill development and vocational Education”, on 10-11 February,2012, Organized by C.V.Raman University, Bilaspur (C.G)(**Invited Talk**)
13. **(2011-12)** “Exploiting Data Mining Techniques for Improving the Efficiency of Time Series Data Using SPSS Clementine”, **International Journal** of Arts Science and commerce, **ISSN: 2229-4686, Print ISSN: 2231-4172**, Vol. – III, Issue 2(3), (PP: 69-80), April. 2012
14. **(2011-12)** “Neural network, support vector machine and its ensemble model for prediction of different categories of dermatology data set”, Proceedings of Academy of Information and Management Sciences, Volume 16, Number 1, Allied Academies **International Conference**

New Orleans, Louisiana, 4-6 April 2012, Volume 16, Number 1, ISSN 1948-3171. (Full Paper in Conference proceeding).

15. **(2011-12)** “An Ensemble model of Multiple classifiers with Feature selection for Classification of data”, **National seminar** on “Innovative Trends in management, Science & technology, on 8 April 2012 Organized by Central College of Engineering and Management & technology Raipur (C.G.) (Presented)
16. **(2011-12)** “Improving Classification Accuracy by using Feature Selection and Ensemble Model”, **International Journal** of soft computing and engineering, ISSN: 2231-2307, Impact factor-0.52, Volume-2, Issue-2, (pp: 380-386), May 2012.
17. **(2011-12)** “Classification and comparative study of different data mining Classifier with feature selection on binomial data set”, **International Journal** of global Research in computer Science, ISSN: 2229-371X, Impact factor-0.92, Volume 3, (pp: 39-45) No.5, May-2012.
18. **(2012-12)** “Importance of e-learning in education”, **National Workshop** on “Computer Applications in Science Teaching, Learning & Research”, organized by Govt.E.Raghvendra Rao P.G. Science College, Bilaspur (C.G), on 1-2 February, 2013. (Invited Talk)
19. **(2012-13)** “Classification of Multi Class Data Set by Using Data Mining Classifiers”, **International journal** of creative research thoughts, ISSN: 2320-2882, Volume 1, issue 4, (PP: 1-11), April 2013, global impact factor 0.554.
20. **(2012-13)** Classification of Multi Class Data Set by Using Data Mining Classifiers”, **National Seminar** on “Adaptive Brain Interfaces With Technical Innovation”, Organized by Mansa Polytechnic College, Bhilai (C.G), on March 6-7, 2013. (Presented)
21. **(2012-13)** “Information Dissemination System with Emerging Technologies for Rural Communities”, **National conference** on “Advanced Computer Applications on rural Development (ACARD-2013)” Organized by the Department of Computer Application, BIT, DURG (C.G), on March 8-9, 2013. (Presented)
22. **(2012-13)** “Ensemble Data Mining Model for Classification of Pima Indian Diabetes Data set”, Proceeding of **International Joint Conference** on Advance Engineering & Technology, ISBN: 978-93-81693-88-22, Raipur, (PP: 16-22) 9th-10th, April 2013. (Presented & Full Paper in Conference Proceeding)
23. **(2012-13)** “Estimation and Comparison of Classification Models by Using Numeric Predictor on Iris Data Set (AICON-13)”, **All India Conference** on “Global Innovations in Computer Science and Engineering and Information Technology, Organized by CSIT, Durg (C.G), on April 12-13, 2013., (PP: 1.30-1.39) ISBN: 978-81-923288-1-2. (Presented & Full Paper in Conference Proceeding)

24. **(2013-14)** “A Comparative Study on Classification of Cancer Data Set by using Various Data Mining Classifiers”, **International Conference** on Emerging Trends in Electrical, Electronics, Instrumentation & Computer Engineering (ETEICE), Organized by Bhilai Institute of Technology , Raipur & Institute for Research and Development India, Bhubaneswar, on March 27,2014,(pp:10),**ISBN: 973-3642-24819-7. (Presented & Full Paper in Conference Proceeding).**

25. **(2013-14)** “A Hybrid Approach for Weight optimization of Neural Network by Using Genetics algorithm on Forecasting Data Set”, **All India Conference** AICON organized by CSIT, Durg, C.G,**ISBN: 978-81-923288-2-9**, April: 25-26, 2014, pp:48-53. **(Published and Presented).**

26. **(2014)** “Accurate Diagnosis of Diseases by using Data Mining Techniques for Rural Mass”, **(Presented)**

27. **(2013-14)** “Accurate Diagnosis of Diseases by using Data Mining Techniques for Rural Mass”, **International Journal** of Advanced and Innovative Research, **impact factor 0.349, ISSN: (2278-7844) / # 28 / Volume 3 Conference Issue 1**, pp: 28-31, May, 2014.

28. **(2014-15)** “A Comparative Study of Classifiers on Recognition of Offline Handwritten Odia Numerals”, IEEE, **International Conference** on Electrical, Electronics, Signals, Communication and Optimization (EESCO)–2015, Organized by Vignan’s Institute of Engineering and Technology, Vizag, 24th & 25th January 2015, Volume 5, 978-1-4799-7676-8, pp:2482-2486, **IEEE digital explore , DOI:10.1109/EESCO.2015.7253699) (Presented & Full Paper in Conference Proceeding)**

29. **(2014-15)** “A Survey on Odia Character Recognition”, **International Journal** of Emerging Science and Engineering, **ISSN:2319-6378**, Volume-3, Issue-4, February 2015, **ISSN: 2319–6378(Online)**, pp: 15-25, **Impact Factor: 3.21**

30. **(2014-15)** “Ensemble of Weak Learners on Recognition of Odia Numeric Digits”, In proceedings of **International Seminar** On Non-Conventional Energy Sources for Sustainable Development of Rural Areas, Organized by Parthivi College of Engineering and Management, Bhilai,21st & 22nd March 2015. **(Presented).**

31. **(2014-15)** “Ensemble of Weak Learners on Recognition of Odia Numeric Digits”, **International Journal** of Engineering Research & Technology (IJERT), **ISNCSR-2015,Volume-3, Issue-20**, pp: 125-128, **ISSN: 2278-0181**, impact Factor: 3.127

32. **(2014-15)** “Real coded Genetics algorithms based neural network model for Odia numerals recognition”, **National Seminar** on Innovation and Research in Science, Management and

Technology(IRSMT), Organized by Bilaspur University, Bilaspur(C.G), 29th & 30th March, 2015.(**Presented**)

33. **(2014-15)** “Recognition of Handwritten Odia Numerals by using Prune Neural Network Model”, **All India Conference** on “SUSTAINABLE PRODUCT DEVELOPMENT”, April 24th – 25th , 2015 Chhatrapati Shivaji Institute of Technology, Shivaji Nagar, Durg,(C.G.) India – 491001 **ISBN: 978-81-923288-3-6 (Presented & Full paper in Conference Proceeding)**
34. **(2014-15, June)** “An Efficient Technique for Recognition of Odia Numerals Using Particle Swarm Optimized Based FLANN Model with Gradient Feature”, International Conference Organized by Rungta Engineering College, Durg, Chhattisgarh, 29-30th June. (**Presented**)
35. **(2014-15, June)** “An Efficient Technique for Recognition of Odia Numerals Using Particle Swarm Optimized Based FLANN Model with Gradient Feature”, Rungta **International Journal** of Computer Science and Information Technology, Volume 1, Issue 1, 29th – 30th , June, 2015, pp: 37-42.
36. **(2015-16, August)** “Real Coded Genetic Algorithm Based Neural Network Model for Odia Numerals Recognition”, **International Journal** of Research Studies in Computer Science and Engineering (IJRSCSE) August 2015, PP 7-14 ISSN 2349-4840 (Print) & ISSN 2349-4859 (Online)
37. **(2015-16)** “Performance Comparison of Ensemble Models for Recognition of Offline Handwritten Odia Numerals”, **International Conference** on Power, Communication and Information Technology Conference (PCITC) Siksha ‘O’ Anusandhan University, Bhubaneswar, India, 15th 17th October,2015, **978-1-4799-7455-9/15/\$31.00 ©2015 IEEE, DOI: 10.1109/PCITC.2015.7438187,INSPEC accession number 15885943, publisher IEEE**, pp:29-35, (**Presented & Full Paper in Conference Proceeding**)
38. Genetic Algorithm Based Hybrid Model for Recognition of Odia Vowels using FLANN and Wavelet Transform, Pp:15-20, **IEEE, International Conference** on Electrical, Electronics, and Optimization Techniques (ICEEOT) – 2nd – 3rd March, 2016, 978-1-4673-9939-5/16/\$31.00 ©2016 IEEE
39. **(2015-16)** “Odia Handwritten Vowel Recognition System using Discrete Cosine Transform and C5.0 Decision Tree Classifier”, **All India Conference** on “CLEAN AND GREEN TECHNOLOGY”, April 22nd – 23rd, 2016 Chhatrapati Shivaji Institute of Technology, Shivaji Nagar, Durg,(C.G.) India – 491001, pp:926-931, **ISBN: 978-81-923288-4-3. (Presented & Full Paper in Conference Proceeding)**
40. **(2016-17)** “Recognition of Vowels using Curvature Features and Genetic algorithm based FLANN model”, AICON’17, **All India conference** on digital engineering organized by

CSIT, DURG, 21st -22nd April 2017, ISBN: 978-81-923288-5-0 , pp: **(Presented & Full Paper in Conference Proceeding)**

41. (2016-17) “Odia Handwritten Vowel Recognition System using Slantlet Transform and Differential Evolution based Functional Link Artificial Neural Network Classifier” , **International Journal** of Advanced Research in Computer Science, **UGC Approved Journal**, Volume 8, No. 5, May-June 2017, **ISSN No. 0976-5697**, pp: 253-260
42. (2016-17) “On Development and Performance Evaluation of Novel Odia Handwritten Digit Recognition Methods”, Arabian Journal for Science and Engineering, **SCI Journal**, 20 June 2017, **ISSN 2193-567X**, DOI 10.1007/s13369-017-2652-6, pp:1-15
43. (2017-18) “Application of Nature Inspired Technique to Odia Handwritten Numeral Recognition, Modeling, Book Chapter in Handbook of Research on Modelling, Analysis, and Application of Nature-Inspired Metaheuristic Algorithms, August, **IGI, Publication**, pp. 377-399, **2018**.(ISBN : 9781522528586)
44. (2017-18) “Survey on Recent Text Line Segmentation Methods of Unconstrained Handwritten Documents”, **IEEE International Conference** on Energy, Communication, Data Analytics and Soft Computing (ICECDS 2017), 1-2 August, 2017, IEEE digital explore.
45. (2017-18) " Recognition of Handwritten Numerals using Curvature Transform and CSO based FLANN Classifier , **National Conference** on Soft Computing and Intelligent Techniques in Science and Engineering (SCITSE), Organized by Department of CSE, NIT, Raipur, 25th November, 2017. **(Presented)**
46. (2017-18) "Classification of diabetes dataset using multilayer Artificial Neural network and C.5 algorithm ", **National Conference** on Emerging Trends in Information Technology and Management (ETITM) organized by Department of IT, NIT, Raipur, 12th December, 2017.**(Presented)**.
47. (2017-18) "Optimization of Recognition Accuracy using Gradient based Transform and Clonal Selection Algorithm ", **National Conference** on Emerging Trends in Information Technology and Management (ETITM) organized by Department of IT,NIT, Raipur, 12th December, 2017.**(Presented)**.
48. (2017-18,16 Feb), “Recognition of Odia Handwritten Numerals using Gradient based Transform and Clonal Selection Algorithm”, **National Conference** on Data Analytics, Machine Learning and Security (NCDAMLS-2018) organized by department of CSIT, GGV, Bilaspur, 15th -16th , February, 2018. **ISBN Number: 978-93-5291-457-9. (Presented & Full Paper in Conference Proceeding)**.

49. (2017-18, 23-26, Feb) “Comparative Analysis of Various Transform on Odia Handwritten Vowels using Support Vector Machine Classifier”, **International Conference** on Mathematical Sciences and Applications (ICMSA-2018) organized by the department of Pure and Applied Mathematics, GGV, Bilaspur, 23rd – 25th, February, 2018.(Presented).
50. (2018-19, 4-5 August) “Application of Cat Swarm Optimization for Recognition of Handwritten Numerals”, International Conference on Innovative Research in Science, Management and Technology (ICIRSMT-2018) held during 4-5 August, 2018, organized by Bilaspur University. (Presented).
51. (2018-19,Feb) “Application of Cat Swarm Optimization for Recognition of Handwritten Numerals”, **International Journal** of Computer Sciences and Engineering (IJCSE), Vol.7 (3), E-ISSN: 2347-2693. (UGC Approved Journal)
52. (2018-19 Apr-Jun) “Recognition of Odia Handwritten Digits using Gradient based Feature Extraction Method and Clonal Selection Algorithm”, **International Journal** of Rough Sets and Data Analysis”, Volume 6, Issue 2, pp. 19-33, April-June 2019, ISSN: 2334-4598|EISSN: 2334-4601|DOI: 10.4018/IJRSDA.
53. (2019-2020, 4-5 January), “Classification of cancer dataset using ensemble classifier approach”, International Conference on Innovative Research in Science, Management and Technology (ICIRSMT 2020) during January 4-5, 2020 organized by Department of Computer Science and Application, Atal Bihari Vajpayee University, Bilaspur (C.G.), India .(Presented).
54. (2019-20, June 2020), “Ensemble of Data Mining Classifiers for classification of cancer Data Set”, **International Journal** of computing and Technology”, June 2020, Volume 7, Issue 6, pp.72-80, ISSN: 2348-6069.
55. (2019-20, June 2020), “Classification of Erythemato-squamous diseases using Artificial Neural Network and Genetic algorithm”, International Journal for Research in Engineering Application & Management (IJREAM) ISSN: 2454-9150 Vol-06, Issue-03, June 2020.
56. (2022, 11 FEB), **Book Chapter**, Classification of Pima Indian Diabetes Dataset Using Support Vector Machine with Polynomial Kernel, Book: Deep Learning, Machine Learning and IoT in Biomedical and Health Informatics, 1st edition, CRC press, ISBN: eBook ISBN9780367548445.
57. (2022) Forest Fire Detection Using VGG16 and ResNet101 Convolutional Neural Networks: A Comparative Study” Chhattisgarh Journal of Science and Technology ISSN: 0973-7219, Volume 19, Issue 2, 2022, pp.- 301-305

58. (2022) Deep Learning-Based Plant Recognition: Comparative Analysis of CNN Models for Autonomous Surveillance and Preservation in the Tehuacán-Cuicatlán Valley., Chhattisgarh Journal of Science and Technology ISSN: 0973-7219, Volume 19, Issue 1 , 2022, pp.- 227-233
59. (2023, 20 January), “Identification of Columnar Cactus from Ariel Images using Convolutional Neural Network” , National Conference on Machine Learning, Deep Learning and IOT organized by the department of CSIT, GGV, Bilaspur, C.G, 19th – 20th January. ISBN:978-93-5768-638-9 (Full paper in Conference Proceeding & Presented)
60. (2023, January), “Identification of wind turbines from satellite images using a deep neural network”, Global Journal of Computer and Engineering Technology (GJCET), Vol.3, No. 1, January, 2023. ISSN:2767-1933
61. (2023, June), “Comparative study of Machine Learning Classifiers for Oil Spill Classification: Assessing the effectiveness of Random Forest and XGBoost”, Journal of Emerging Technologies and Innovative Research” (JETIR), Volume 10, Issue 6, ISSN:2349-5162, pp:508
62. (2024, January) “Water body image segmentation using U-NET”, International Journal of Decision Science & Information Technology (IJDSIT), Volume 11, 2024, ISSN: 1973-9013,
63. (2024, January) “Flood detection using convolutional neural networks VGG16 and VGG16 with Data Augmentation: A comparative study” organized by JNVU-ABVU-AIMT spring International Conference held during January 05-07, 2024 at Atal Bihari Vajpayee University Bilaspur, C.G. (**Full Paper Conference Proceedings**).
64. (2025, February) Book chapter, “Optimizing Diabetes Classification Hybrid FLANN Model with Evolutionary Optimization Techniques”, Book: Ambient Assisted Living (AAL) Technologies, Edition 1st Edition, First Published 2025, Imprint CRC Press, Pages 13, ISBN: eBook ISBN 9781003520184
65. (2025, September) Enhancing flood segmentation in aerial imagery using a dual-decoder efficient U-Net with CBAM and post-hoc explainable AI technique, [Engineering Research Express](#), [Volume 7](#), [Number 3](#). DOI 10.1088/2631-8695/ae0004
66. (2025, September) Emerging Deep Learning Approaches for urban satellite image analysis: a survey on classification, segmentation, and change detection”, Evolutionary Intelligence, (2025) 18:106, <https://doi.org/10.1007/s12065-025-01090-2>

Project: Quantitative analysis of cardiovascular health: A Deep learning approach for early detection and risk assessment for Chhattisgarh State Under Progress, Amount: ₹ 440000.00,

Funding Agency: Chhattisgarh Council of Science and Technology (CCOSTT), Duration: 30:03:2025 - 28:02:2027

Best Paper Award:

- **(2014-2015)** Best Paper Award for the presentation on “Ensemble of Weak Learners on Recognition of Odia Numeric Digits”, In **International Seminar** on Non-Conventional Energy Sources for Sustainable Development of Rural Areas, Organized by Parthivi College of Engineering and Management, Bhilai, 21st & 22nd March 2015

Invited Talk:

- **(2012)** National Conference, Invited Talk on “Information Communication Technology and Skill Development in Educational Sector”, C.V.R, University, Bilaspur, Chhattisgarh, 2012.
- **(2013)** National Workshop, Invited Talk on “Importance of E-Learning in Education, Science College, Bilaspur, Chhattisgarh, 2013.
- **(2021)** 13th – 24th, December, Refresher Course, Invited Talk on “Quantitative Research Methods and Use of Statistical Software for Social Science Researchers”, Organized by HRDC, GGV, Bilaspur, C.G
- **(2022)**, 30 May, Refresher Course, Invited Talk on “Statistical Data Analysis using Excel”, Organized by HRDC, GGV, Bilaspur, C.G
- **(2023)**, 09 Jan, Expert Lecture on “Machine Learning and Evolutionary Computing”, Organized by Bilaspur University, C.G.
- **(2023)** 22nd, February, Refresher Course, Invited Talk on “Sources of Data, Preprocessing of Data and Prediction using Machine Learning”, Organized by HRDC, GGV, Bilaspur, C.G
- **(2023)** 24th, February, Refresher Course, Invited Talk on “Performance Measures in Machine Learning”, Organized by HRDC, GGV, Bilaspur, C.G
- **(2024)** 22nd February, Refresher Course, Invited Talk on “Statistical Data Analysis using Excel”, Organized by HRDC, GGV, Bilaspur, C.G

- (2024) 20th, Invited Talk on “Artificial Intelligence and Machine Learning”, Academic and Industrial Popular Lecture Series, Organized by Department of Computer Science and Application, April 12-13, 2024, ABVV, Bilaspur.
- (2025) 19th September, Invited Talk on “Explainable AI in Satellite Image Analysis with CNN Based Deep Learning Models”, Organized by HRDC, GGV, Bilaspur, C.G

Patent Published:

- 1) Optical character recognition-based system for assisting the visually impaired By: Dr. Rashmi Gupta, Mr. Jeetendra Kumar, Dr. Babita Majhi, Rupesh Naik, Dr. Pushpalata Pujari, Sachin Singh Rajput, Mrs. Gargee Shukla, Pravin Singh Yadav, Patent No: IPC: G06V 10/80 Filed: 03-12-2023 Published: 02-01-2024 Granted Country: Germany
- 2) SMART PARKING MANAGEMENT SYSTEM By: Jeetendra Kumar, Dr. Rashmi Gupta, Dr. Babita Majhi, Suraj Sahu, Gargee Shukla, Dr. Pushpalata Pujari, Rupesh Naik, Patent No: Application no.202421043570 Filed: 05-06-2024 Published: 02-08-2024 Published Country: India
- 3) SYSTEM AND METHOD OF WAVELET BASED ENSEMBLE MODELS FOR EARLY MORTALITY PREDICTION USING IMBALANCE ICU BIG DATA, By: 1. Babita Majhi, Aarti Kashyap, Pushpalata Pujari, Rupesh Naik and Srishti Tripathi, Patent No: Application 202321028596 Filed: 19-04-2023 Published: 02-06-2023 Published Country: India
- 4) SYSTEM AND METHOD FOR TIME SERIES PREDICTION OF INFECTIOUS DISEASE CASES FROM MULTI-COUNTRY DATA USING REMODELED ARTIFICIAL NEURAL NETWORK (ANN), By: Babita Majhi, Pushpalata Pujari, Rupesh Naik, Srishti Tripathi, Prakash Ku Tripathi, Gargee Shukla, Patent No: Application No. 202321034369 Filed: 02-05-2023 Published: 16-06-2023 Published Country: India

Training Programme Attended:

1. **Refresher Course** on “ICT- Applications”, 30 Nov to 19 DEC 2009, Organized by Academic Staff College, GGV, Bilaspur.
2. **Orientation Programme** from 26/11/12 to 22/12/12 Organized by Academic Staff College, GGV, Bilaspur.

3. **Refresher Course** on “Cloudera: Big Data and Cloud Analytics”, Organized by JNTU, Hyderabad, Andhra Pradesh from 10-11-2014 to 29-11-2014.
4. **Online refresh course** on “Neural Networks and Deep Learning”, SWAYAM ARPIT ONLINE COURSE, for Career Advancement Scheme (CAS) promotion, 30/03/19.
5. **Online Faculty Development Programme** on Advanced Optimization Techniques and hands-on with MATLAB/SCILAB, 13 – 24 July 2020, Organized by Electronics and ICT academy, MNIT Jaipur, NIT Patna, and PDPM IIT DM Jabalpur, (Supported by Ministry of Electronics and Information Technology (MeitY), Govt. of India).
6. **Online Faculty development programme** on Simulation and modeling of data communication and network, 27_31 July, 2020, organized by Dept. of Electronics and Communication and engineering, MGIT Hyderabad.
7. **Online Faculty development program** on “ICT Tools for Teaching, Learning Process and Institute” jointly organized by Electronics and ICT Academies held from 10th □ 21st August, 2020 under the “Scheme of financial assistance for setting up of Electronics and ICT Academies” of the Ministry of Electronics and Information Technology (MeitY), Government of India.
8. **Online Faculty development Program** on “Emerging Trends on Machine Learning and its Applications” Organized by the Department of Computer Science and Information Technology” from 07/03/2022 to 11/03/2022.
9. **Online Refresher Course in Computer Science** organized by Ramanujan College, University of Delhi, held from 13th □ 27st March, 2023.
10. **NEP 2020 Orientation and Sensitization Programme under Malaviya Mission Teacher Training Programme (MM-TTP) of University Grant Commission (UGC) organized by UGC- MMTTC, Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur (C.G.) from 04-03-2024 to 13-03-2024**

Others

- **(2017-2018) Co-Convener of National Conference** on Data Analytics, Machine Learning and Security (NCDAMLS-2018) organized by department of CSIT, GGV, Bilaspur, 15th -16th, February, 2018.
- **(2017-2018) Edited Proceeding of National Conference** on Data Analytics, Machine Learning and Security (NCDAMLS-2018) organized by department of CSIT (NCDAMLS-2018), GGV, Bilaspur, 15th -16th, February 2018, in electronic format with **ISBN number: 978-93-5291-457-9** in electronic format.

- **(2022-2023) Co-Convener of National Conference** on Machine Learning, Deep Learning and IOT organized by department of CSIT, GGV, Bilaspur, 19th -20th, January, 2023.
- **Project Guidance to B.Sc (CS), MCA, M.Sc(CS) Students:** More than 300
- **Research Supervision: Three pursuing**
- **Administrative Responsibilities:**

- 1) Member of Roaster Committee (2019-2025).
- 2) Member of DRC Committee.
- 3) Member of Department Anti Ragging Committee.
- 4) Member of Scrutiny Committee.
- 5) Member of Board of Studies.
- 6) Member of Faculty Selection Committee (2019).
- 7) Head of the Department (From 2017 to 2021)
- 8) Member of Department Admission Committee.
- 9) Coordinator of Joint Counseling (B.Sc, Honours)
- 10) Member of NEP 2020 Task Force.
- 11) Member of Department SC/ST Committee.
- 12) Member of Department Internal Complaint Committee.
- 13) Member of Technical verification Committee.
- 14) Coordinator of Computer Repairing Committee.
- 15) Representative of compliance of deficiencies (AICTE Approval Process)
- 16) Member, IT cell
- 17) Member, Wifi maintenance
- 18) Member of Disciplinary Committee.
- 19) Member of Distance Education Program committee.
- 20) Coordinator, BCA (2024-25)
- 21) Coordinator, MCA-1st semester (2025-26)
- 22) Member of B.Sc(CS) ABDP of CSIT, 2025
- 23) Member of Dept. Admission Committee 2025-26
- 24) Member for development of Apprenticeship based BSc (CS) Program May 2025
- 25) Member, DRC. 2025-2027
- 26) Coordinator, Ph.D , Admission Committee.