

CURRICULUM VITAE

Dr. BHAVYA DEEP

Skilled in Lecturing, Curriculum Development and Research, I have a demonstrated history of working in the field of academics and research. Having more than two decades of work experience, I have worked in various senior academic and administrative positions of the college. In addition to research papers indexed in SCI and Scopus, presented a paper at the IEEE conference which was held in San Francisco, USA in 2018. I take a keen interest in student-centric activities and focus on the overall development of students.

Total Experience	25+ Years (Regular). Online teaching experience – Yes.
Areas of Interest	Environmental Engineering, Internet of Things (IoT), Machine Learning, Recommender Systems.
Subjects Knowledge	C++, Java, Python, Arduino, Machine Learning, Information Security, Theory of Computation, Software Engineering, Operating Systems, Data Structures, etc.
Present Status	Associate Professor of Computer Science Department of Computer Science, Bhaskaracharya College of Applied Sciences, (Accredited 'A++' Grade by NAAC) University of Delhi, Delhi, India.
Organization link	http://bcas.du.ac.in/academics/faculty/
Job Portfolio	Joined Bhaskaracharya College of Applied Sciences, University of Delhi in Aug 1999 as a Lecturer of Computer Science. Promoted to Senior Lecturer in Aug 2005 followed by Assistant Professor in January 2010 and then to Associate Professor in Nov 2016. Prime responsibility includes teaching, assessment and administrative work of the college.
Qualification	Ph.D. in Computer Science from Banasthali Vidyapith, India (Accredited A++ by NAAC). M.Sc. Computer Science from ICSE, Devi Ahilya Vishwavidyalaya, Indore, India. Passed in June 1999 with an aggregate of 86.68% (CGPA 9.35/10.00).
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Gender Male

Nationality Indian

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Awards

- (i) Coordinated and Won **Thinkers of Tomorrow** Trophy for my College awarded by Symphony in partnership with CNBC News 18 Network, India on 10th March 2023.
- (ii) Got **Innovative Leader** Award in 2nd World Education and EdTech Conclave & Awards, organized by B2B Infomedia on 19th January 2023.
- (iii) Got the certificate of **most significant research Outcomes** and certificate of **appreciation for research display** for an innovation project sponsored by Delhi University Research Council in the year 2015-16. Project title “Study and Design of framework for cloud implementation in large university / higher education”.
- (iv) Got the certificate of **Best Display** for an innovation project sponsored by Delhi University Research Council in the year 2013-14. Project title “Genetic curation of ataxia phenomes for establishment of predictive and rapid diagnostic paradigm”.
- (v) Best paper award in an international Conference on Recent Innovations in Science, Engineering, and Management held at Indian Federation of United Nations Associations (IFUNA), New Delhi, India in 2016. Paper title ‘Title “Security and Data Transmission Techniques in Cloud Environment’.

Honors / Certifications

Sr No.	Achievement	Agency	Period	Remarks
1.	Mentor	G20 Empower Mentorship Platform for Women	July 2024 onwards	launched in 2023 during India’s G20 Presidency with the support of the Ministry of Women and Child Development, GoI. It is an extension of the Women Entrepreneurship Platform (WEP)
1.	Reviewer	Scientific Reports, Springer Nature	2023	
2.	PhD Co-Supervisor	Department of Computer Science, Faculty of Mathematical Sciences, University of Delhi	2023 onwards	

3.	Editorial Board Member	PriMera Scientific Engineering, ISSN: 2834-2550	2023 – Till Date	
4.	Reviewer	2nd International Conference on Climate Change and Ocean Renewable Energy (CCORE 2023)	Nov 6-7, 2023	
5.	Editorial Board Member	American Journal of Environmental Science, ISSN: 2578-7993	Dec 2022 – Dec 2024	
6.	Reviewer	Qeios	2022-Till Date	Review is WoS indexed
7.	Paper Setter and Moderator	NIELIT Various Levels	2022-Till Date	
8.	Chair of the Workshop on “Machine Learning”	International Conference on Frontiers of Electronics, Information and Computation Technologies, Wuhan, China	August 19-21, 2022	
9.	Reviewer	International Symposium on Automation, Information and Computing (ISAIC 2022), Beijing Jiaotong University International Conference on Electrical, Computer and Energy Technologies (ICECET 2022), Prague, Czech Republic Other Conferences and Journals	Dec 9-11, 2022 July 20-22, 2022 2018-23	
10.	Chief Editor	International Journal of Distributed & Cloud Computing (IJDCC), ISSN: 2321-6840 (UGC Referred Journal till June 19)	February 2019 to 2023	
11.	Computer Science Department Coordinator, BCAS	DBT Star College Scheme, Government of India	April 2018 to March 2021	Got fund of Rupees Sixteen Lacs for the period 2019-22.
12.	Membership	IEEE Technical Committee on Services Computing (TCSVC)	October 2018 to date	Complimentary membership.
13.	Authorized trainer to handle “Java” training to students enrolled through Oracle Academy and teach as per	Oracle Academy	10-14 th June 2019	Completed 30 hours of the professional development course of Oracle Academy on “Java

	ilearning.oracle.com course structure			Programming”.
14.	AWSome Learner Badge.	AWSome Day Online Conference, powered by AWS	30 th May 2019	
15.	AWS Cloud Literate (Inventor)	AWS Educate	8 th October 2018	

Government Funded Projects

- (i) Principal Investigator for an Innovation Project sanctioned by Delhi University Research Council in the year 2015-16. Project title “Study and Design of framework for cloud implementation in large university / higher education”. **Got a Research grant of Rupees three and half lacs.** The project was awarded the certificate of most significant research Outcomes and certificate of appreciation for research display.
- (ii) Principal Investigator for an Innovation Project sanctioned by Delhi University Research Council in the year 2013-14. Project title “Genetic curation of ataxia phenomes for establishment of predictive and rapid diagnostic paradigm”. **Got a Research grant of Rupees five and half lacs.** The project was awarded the certificate of most significant research Outcomes and certificate of appreciation for research display.

Teaching Experience

Total teaching experience is more than Twenty-five years. Prime responsibility includes teaching, assessment, and evaluation.

- (i) **Regular faculty** at Bhaskaracharya College of Applied Sciences, University of Delhi since August 1999 to teach computer subjects to students of various courses like B.Sc (Hons) Computer Science, Bachelor in Information Sciences (BIS) and B.Tech/FYUP Computer Science mode, held in college from time to time.
- (ii) **Visiting faculty** for various subjects in different colleges of University of Delhi and other universities.
 - (a) Object Oriented Programming at CVS, University of Delhi. Taught in 2024.
 - (b) Theory of Computation at PGDAV College, University of Delhi. Taught in 2015.
 - (c) Software Engineering at LBSIM, Affiliated Management Institute of IP University, Delhi. Taught in 2014.

(d) Object-Oriented Programming using C++ at LBSIM, Affiliated Management Institute of IP University, Delhi. Taught in 2012.

(iii) **Resource Person**

- (a) Two-hour Workshop on “File Transfer Protocols and Advantages of Encrypted Data Transfer” held on 4th Nov 2022 and 30th Nov 2023, organized by Sukshmjeev Society, Department of Microbiology, BCAS.
- (b) Invited Speaker on October 16, 2018 for Workshop on “Internet of Things” organized by Department of Computer Science and Engineering, Subharti Institute of Technology and Engineering, Swami Vivekanand Subharti University, Meerut, India. I also conducted a hands-on session on “Working with Ubidots”.
- (c) “Laboratory Staff Skill Development Program” organized by BCAS, University of Delhi sponsored by DBT Star College Scheme, December 15-18, 2014.
- (d) Three-day workshop on “Statistical Analysis of Biological Data” for undergraduate students at BCAS, University of Delhi sponsored by DBT Star College Scheme from October 9-11, 2014.
- (e) Capacity Building of Delhi University Faculty in ICT Workshop, under the aegis of the Institute of Lifelong Learning (ILL). The workshop was powered by Microsoft. Colleges covered BCAS, ARSD, SPM, and Kalindi College. Year 2010-11.

(iv) **Academic Counsellor** of MCA, BCA, and CIC course of IGNOU at study center 0728 during the period 1999 – 2006.

(v) **Coordinator / Head Examiner / Paper setter / Evaluator** every year for various computer subjects at the University of Delhi since 1999. Also, visited Sherubtse College, Bhutan in November 2004 for examination work.

(vi) **Recent Projects Supervised**

- (a) Supervised the integration of Provisional Certificate Software with College Website and has made the issuance process fully automated. Period April – July 2025. Student involved – Mr. Chiranjit Mandal.
- (b) Supervised the tree bar code generation process and deployed in the college by Garden Committee. Year 2024-25. Student involved – Mr. Chiranjit Mandal.
- (c) Supervised the design, development and deployment of college’s in-house project ‘Issue of Digitally Signed Provisional Certificate through Online Mode’ developed by two students of B.Sc (Hons) Computer Science 2nd Year of the college. Period July – Dec 2022.
- (d) Project title “Stock Prices Trend Prediction”. Period 16th June 2020 – 15th July 2020. Three layer Long Short Term Memory (LSTM) model was built to predict the trend of stock prices. Datasets of three banks with twenty years duration were considered and RMSE of 44.30, 35.79 and 14.83 was achieved. Students involved – Mr. Harshit Pal and Mr. Vaibhav Magoo.
- (e) Project title “Predicting the Programming Language of Stack Overflow Questions using NLP”. Period 31st July 2020 – 14th September 2020. LSTM classifier was proposed to predict the programming language of questions posted in stack overflow website using Natural Language Processing (NLP). The classifier achieved an accuracy of 82.34% in predicting the 16 most

popular programming languages by combining features from the title and the body of the question. Students involved – Mr. Harshit Pal.

- (f) Project title “Automatic Neural Image Captioning”. Period 1st October 2020 – 31st December 2020. The goal of this project was to develop an inject architecture of the Xception-LSTM model to describe photographs. Flickr 8k dataset was used and categorical accuracy of 86.19% was achieved. Students involved – Mr. Harshit Pal.

Administrative Experience

- (i) **Teacher in charge** of the Computer Science Department of the college.
- (a) 1st April 2019 - 31st March 21
 - (b) 1st April 2017 – 30th June 17
 - (c) 9th January 2017 - 31st March 17
 - (d) 10th December 2014 – 31st May 2015
 - (e) 1st April 2009 – 31st March 2011
- (ii) **Teaching Member of the College Governing Body** of the college.
- (a) 1st April 2018 - 31st March 2019
 - (b) 1st November 2002 – 31st October 2003
- (iii) **Principal Information Officer (PIO)** of the college to look after RTI (Right to Information) related complaints/queries. Serving period from 1st July 2015 till 31st August 2016.
- (iv) **Nodal Officer** of the college for Semester Theory Open Book Examinations 2020-21.
- (v) **Convener, Co convener, Coordinator and Member of several workshops, webinars, staff council committees at College and University level.**

Research Publications

- (i) Deep, B. (2025 Accepted and yet to be published). Book chapter titled "Optimizing Urban Commutes: A Novel Approach to Least Polluted Routes Using Real-Time Data and Graph Algorithms" in the upcoming book titled “Computational Optimization Techniques for Artificial Intelligence Enabled Environments” to be published by Springer Nature.
- (ii) Deep, B., & Jain, A. (2023). PREVENTION AND DETECTION OF INTRUSION IN CLOUD USING HIDDEN MARKOV MODEL. International Journal of Research -GRANTHAALAYAH, 11(2), 40–46. <https://doi.org/10.29121/granthaalayah.v11.i2.2023.5022>
- (iii) Deep, B. (2023). Determination of least polluted route using Dijkstra’s algorithm. International Journal of Environmental Science and Technology (IJEST). ISSN Number: 1735-1472. h-index: 84. Impact factor: 3.61. <https://doi.org/10.1007/s13762-022-04750-3>.
- (iv) Deep, B., Mathur, I. & Joshi N. (2021). An Approach to Forecast Pollutants Concentration with Varied Dispersion. International Journal of Environmental Science and Technology (IJEST). ISSN Number: 1735-1472. h-index: 84. Impact factor: 3.61. <https://doi.org/10.1007/s13762-021-03378-z>.

- (v) Deep, B., Mathur, I. & Joshi N. (2020). Coalescing IoT and Wi-Fi technologies for an Optimized Approach in Urban Route Planning. Environmental Science and Pollution Research (ESPR). ISSN Number: 0944-1344. h-index: 132. Impact factor: 5.03. <https://doi.org/10.1007/s11356-020-094777>
- (vi) Deep, B., Mathur, I. & Joshi N. (2020). Estimated Power Cost Comparison of Physical Server Vs Virtualized Server in a Data Center. International Journal of Advanced Science and Technology (IJAST), 29(06), 5335-5342. ISSN Number: 2005-4238. h-index: 17. Impact factor: 0.475. <http://sersc.org/journals/index.php/IJAST/article/view/19602>
- (vii) Deep, B., Mathur, I. & Joshi N. (2019). An Approach Toward More Accurate Forecasts of Air Pollution Levels Through Fog Computing and IoT. In: Tuba M., Akashe S., Joshi A. (eds) Information and Communication Technology for Sustainable Development. Advances in Intelligent Systems and Computing, vol 933. Springer, Singapore, pp 749-758. The paper was presented at the International Conference on ICT for Sustainable Development (ICT4SD) on 30-31st August 2018 at Vivanta, Goa, India. Print ISBN: 978-981-13-7165-3. https://doi.org/10.1007/978-981-13-71660_75. h-index: 48. Impact factor: 0.61
- (viii) Deep, B. & Bose, R. (2018). Content rating technique for cloud-oriented content delivery network using weighted slope one scheme. IEEE 11th International Conference on Cloud Computing (CLOUD), E-ISSN: 2159-6190. <https://doi.org/10.1109/CLOUD.2018.00118>. The paper was **presented at IEEE World Congress on Cloud Computing July 2-7, 2018, San Francisco, California, USA.**
- (ix) Deep, B., Bose, R., Mathur, I. & Joshi N. (2018). Seamless Selection of Printers and Printing using Cloud Computing. In: Special issue ICSCAAIT 2018. International Journal of Electrical, Electronics & Computer Science Engineering (IJECCSE), pp 53-61. The paper was presented at the International Conference on Sustainable Computing and Advanced Artificial Intelligence Techniques (ICSCAAIT-2018). The conference was organized by the School of Computer Science & Engineering, Lingaya's Vidyapeeth, Faridabad on 24 - 25 January 2018 in association with IJECCSE and was technically sponsored by the Computer Society of India and Ministry of Electronics & Information Technology, Govt. of India. https://ijeccse.webs.com/ICSCAAIT_041.pdf
- (x) Bedi, P., Deep, B., Kumar, P. & Sarna, P. (2018). Comparative Study of OpenNebula, CloudStack, Eucalyptus, and OpenStack. International Journal of Distributed and Cloud Computing (IJDC), 6(1), 37-42. <http://www.publishingindia.com/ijdcc/68/comparative-study-of-opennebula-cloudstack-eucalyptus-and-openstack/703/4909/>
- (xi) Deep, B., Kumar, P. & Kumar, N. (2016). Overview of Data Centre in Cloud-Based Environment. International Journal of Electrical and Electronics Engineers (IJEEE), 08(02), 372-376. The paper was presented at the International Conference on Recent Trends in Engineering & Science (ICRTES16) held on 29th-30th September 2016. Venue: Shree Ramchandra College of Engineering, Pune (India). ISBN: 978-93-86171-06-1, pp 90-94. <http://www.arresearchpublication.com/currentissue.php?id=62>
- (xii) Deep, B., Kumar, P. & Bansal, P. (2016). Security and Data Transmission Techniques in Cloud Environment. In: International Journal of Advanced Technology in Engineering and Science (IJATES), 04(10), 622-625. The paper was presented at the 8th International Conference on Recent Innovations in Science, Engineering, and Management (RISEM - 16). Venue: Indian Federation of United Nations Associations (IFUNA), New Delhi, India on 21st October 2016. ISBN: 978-9386171-14-6, pp 238-241. <http://www.ijates.com/currentissues.php?id=99>

- (xiii) Sarddar, D., Deep, B. & Bose, R. (2016). Examining Virtualization: A Survey into Fundamentals and Techniques. International Journal of Scientific & Engineering Research (IJSER), 7(9), 535-542. https://www.ijser.org/research-paper-publishing-september-2016_page3.aspx
- (xiv) Deep, B., Yadav, P. & Sett, R. (2016). Resource Allocation for Cloud-based E-Learning Systems. International Journal of Distributed and Cloud Computing (IJDCC), 4(1), 34-38. <http://www.publishingindia.com/ijdcc/68/resource-allocation-for-cloud-based-e-learning-systems/512/3660/>