RESUME

Name   : **Bharat M Deshpande**

Date of Birth   : **05/06/1968**

Marital status   : **Married**

Educational Qualification

- M.Sc. in Mathematics (1992) - Mumbai University
- Ph.D. in Mathematics (1998) - IIT Bombay

Title of Thesis: Hypertoplogies on Uniform Spaces & Stability in Optimization

Professional Experience

- DAE **Post Doctoral Fellow** 1998 - 1999 at I.I.T. Bombay
- **Lecturer** from 1999 - 2001 in Department of Applied Mathematics at Technology Faculty of M.S. University Baroda
- **Lecturer** from Oct.2001 - Feb. 2004 in Department of Computer Science & Information Systems, BITS Pilani, Pilani Campus
- **Assistant Professor** from March 2004-June. 2005 in Department of Computer Science & Information Systems, BITS Pilani, Pilani Campus
- **Assistant Professor** from July 2005 - Feb. 2010 in Department of Computer Science & Information Systems, BITS Pilani, K K Birla, Goa Campus
- **Associate Professor** from March 2010 – Feb. 2018 in Department of Computer Science & Information Systems, BITS Pilani, K K Birla, Goa Campus
- **Professor** from Feb. 2018 till date in Department of Computer Science & Information Systems, BITS Pilani, K K Birla, Goa Campus

Administrative Experience

- **Head of the Department**, Department of Computer Science & Information Systems from 2006 - 2017
- **Associate Dean**, Academic Graduate & Studies Research Division, from April 2018 to May 2025
- **Acting Dean**, Administration, from January 2020 to December 2020
- **Faculty In-Charge**, Students Activity Center from 2006 to 2011
- **Faculty In-Charge of CTE** (Center of Technical Education) which meet the demands of students to be trained in specific technologies.
- **Member** of Curriculum Restructuring Committee
- **Member** of Recruitment Committee for Computer Science Department & Mathematics Department
- **Chair – Organizing Committee ICDCN (2015)**, 16th International Conference on Distributed Computing & Networking, held at BITS Pilani, K K Birla Goa campus from 4-7 Jan.2015.
- **Local Chair – Organizing Committee ACM India Annual Meet,** held at BITS Pilani, K K Birla Goa Campus from 5-7 Feb. 2015.
- **Faculty In-Charge** of Computer Science Association, BITS Pilani

Research Interests

- Complexity Theory
- Algorithms
- Data Mining

Sponsored Projects

- **Received grant of Rs. 39 lakhs as (co-PI)** from **Cognitive Science Research Initiative (CSRI**) of Department of Science and Technology (DST), Govt. of India for research project, titled "**Home automation and smart wheel chair based on EEG signals produced in brain**"

Ph.D. students

As Supervisor
Completed

- Mr. Nitin Upadhyay
  Title of the thesis: Concurrent Modeling, Analysis and Design of Component Based Software System

- Mr. Mangesh Bedekar
  Title of the thesis: Making Web Applications Intelligent using Web Data Mining

- Mr. Ramprasad Joshi
  Title of thesis: Applicability of Theoretical Computer Science to New Practical Computational Techniques and Paradigms

- Mr. Sanjay Joshi (Persistent Systems, Goa)
  Title of thesis: Predicting Reliability in Software Product Development Environment

In Progress

- Mr. Prashant Joshi
  Title of the thesis: Dynamic Architecture for collaborating computing paradigms related to Vehicular to Infrastructure (V2I) networks

As Co-Supervisor
Completed

- Ms. Shubhangi K Gawali
  Title of thesis: Design of High Performance Energy Efficient Scheduling Algorithms for Uniprocessor and MP/MC Hard Real-time Systems

- Mr. TSRK Prasad
  Title of thesis: Cell Model of Multidimensional Networks

- Mr. Mayur Jartarkar
  Title of thesis: Modeling Cognitive Functions Of Consumer Behavior Using Brainwave Measurement Technology And Machine Learning

Master's Thesis

- L Ravi Kumar: Title of Thesis - Grid Computing: Building a Resource Grid
- K Yamini: Title of Thesis - Pattern Matching Algorithms In Bioinformatics
- Akshat Agarwal: Title of Thesis - Parallel Numerical Algorithm
- Rohit Omanwar: Title of Thesis - User Profiling for Content Based Personalized Ranking of Search Results and Web Page Recommendation

Publications

Journal

- Ramprasad Joshi, **Bharat M. Deshpande**, (2014) Empirical and analytical study of many-objective optimization problems: analyzing distribution of nondominated solutions and population size for scalability of randomized heuristics. Memetic Computing 6(2): 133-145
- Upadhyay, N., **Deshpande, B. M.,** and Agrawal, V. P. (2011). Reliability Modeling and Analysis of Component Based Software Systems, International Journal of Reliability and Safety.
- Upadhyay, N., **Deshpande, B. M**., and Agrawal, V. P. (2011). Towards a Software Component Quality Model, Springer (LNCS), pp. 398-412.
- Upadhyay, N. and **Deshpande, B. M**. (2010). SDCS: six-dimensional classification strategy framework for COTS products. International Journal of Data Analysis Techniques and Strategies, 2(2), pp. 170–180.
- Upadhyay, N., **Deshpande, B. M.,** and Agrawal, V. P. (2010). Integrated Decision Approach for COTS Selection, International journal of Decision Sciences, Risks and Management, 2(3), pp. 165-177.
- Upadhyay, N., **Deshpande, B. M**. and Agrawal, V. P. (2010). Concurrent Design Graph Theoretic Approach for Component Based Software System, International Journal of Product Design, 1(1), pp. 13-23.
- Upadhyay, N., **Deshpande, B. M**. and Agrawal, V. P. (2010). Developing Maintainability Index of a Software Component: A Digraph and Matrix Approach, ACM SIGSOFT 35(5), pp. 1-11
- Upadhyay, N., **Deshpande, B. M**. and Agrawal, V. P. (2010). Concurrent Usability Evaluation and Design of Software Component: A Digraph and Matrix Approach, IEEE/IET Software Research Journal, pp. 1-13.
- Mangesh Bedekar, **Bharat Deshpande** (2010): Design and Implementation of a extensible Peer–to–Peer Content Recommendation System, International Journal on Computer Science and Engineering, volume 2, issue 4, pp. 1018 – 1023.
- Mangesh Bedekar, **Bharat Deshpande** (2010): Design and Implementation of a extensible Peer–to–Peer Content Recommendation System, International Journal on Computer Science and Engineering, volume 2, issue 4, pp. 1018 – 1023.
- Mangesh Bedekar, **Bharat Deshpande** (2010): Profiling the User – A ringside view, International Journal of Machine Intelligence, volume 2, issue 2.
- **B.M. Deshpande** & D.V. Pai (2000) On Hypertopologies and the Young Fenchel Transform, Numer. Funct. Anal. And Optimiz., 21 (7&8), 885-900
- **B.M. Deshpande** & D.V. Pai (1995): Topologies Related to The Prox Map And The Restricted Center Map, Numer. Funct. Anal. And Optimiz., 16(9&10), 1211-1231
- **B.M. Deshpande** & D.V. Pai (1995) On continuity of The Prox Map and The Restricted Center Map, Approximation Theory VIII, Vol. 1, C.K. Chui & L.L. Schumaker (eds.) 451

Conference/Workshops

- Prashant G Joshi, **Bharat M Deshpande** (2025) **(Accepted)** A Framework for System Design Using Collaborative Computing Paradigms (CCP) for IOT Systems, 20th International Conference on Software Technologies (ICSOFT 2025), 10-12 June 2025, Bilbao, Spain
- Prashant G Joshi, **Bharat M Deshpande** (2025) Advancing IoT Architectures using Collaborative Computing Paradigms for Dynamic and Scalable Systems, *13th International Conference on Model-Based Software and Systems Engineering* (MODELSWARD 2025), 26-28 February 2025, Porto, Portugal
- Prashant G Joshi, **Bharat M Deshpande** (2024) Enabling Unified and Scalable IoT Ecosystems: A Customizable Data Framework for Interoperability Across Heterogeneous Devices, International Conference on Computer and Applications (ICCA 2024), 17-19 December 2024, Cairo, Egypt
- Prashant G Joshi, **Bharat M Deshpande** (2024) Enhancing DM/OTA/FOTA Systems Architecture for IOT using Collaborative Computing Paradigms Reference Architecture IEEE Pune Section International Conference (PuneCon 2024), 13-15 Dec. 2024 Pune, India
- Prashant G Joshi, **Bharat M Deshpande** (2024) A Reference Architecture Based on Collaborative Computing Paradigms Adopted for Dynamic IoT Systems, IEEE Pune Section International Conference (PuneCon 2024)**,** 13-15 Dec. 2024 Pune, India
- Prashant G. Joshi, **Bharat M. Deshpande** (2024) A Reference Architecture for Dynamic IoT Environments Using Collaborative Computing Paradigms (CCP-IoT-RA) Proceedings of the 19th International Conference on Software Technologies (ICSOFT 2024), 8-10 July 2024, Dijon, France
- Prashant G Joshi, **Bharat M Deshpande** (2024), Collaborative Computing Paradigms: A Software Systems Architecture for Dynamic IoT Environments *12th International Conference on Model-Based Software and Systems Engineering* (MODELSWARD 2024), 21-23 February 2024, Rome Italy
- S Joshi, **B Deshpande**, S Punnekkat (2019) Experimental analysis of dependency factors of Software Product Reliability using SonarQube IWSM MENSURA, 7-9 Oct. 2019, Haarlem, Netherlands
- Prasad Talasila, Mihir Kakrambe, Anurag Rai, Sebastin Santy, Neena Goveas, **Bharat M. Deshpande**, (2018) BITS Darshini: A Modular, Concurrent Protocol Analyzer Workbench, 19th International Conference on Distributed Computing and Networking (ICDCN), 4 – 7 January, 2018, Varanasi, India
- Prasad Talasila, Shaik Asifullah, Neena Goveas, **Bharat Deshpande** (2018) Transit timetables as multi-layer networks, 10th International Conference on Communication Systems & Networks (COMSNETS) 3-7 Jan. 2018
- Prasad Talasila, Aparajita Haldar, Suhas S. Pai, Neena Goveas and **Bharat M. Deshpand**e, (2017) Multimodal Transit Scheduler: An Actor-based Concurrent Approach, 20th IEEE International Conference on Intelligent Transportation Systems, 16 – 19 October 2017, Yokohama, JAPAN,
- Sanjay L Joshi, **Bharat Deshpande**, Sasikumar Punnekkat, (2017) Do Software Reliability Prediction Models Meet Industrial Perceptions?, Proceedings of the 10th Innovations in Software Engineering Conference, 5-7 Feb., 2017, Jaipur India
- Sanjay L Joshi**, Bharat Deshpande**, Sasikumar Punnekkat,(2017), An industrial survey on the influence of process and product attributes on software product reliability, International Conference on Networks & Advances in Computational Technologies (NetACT), 20-22 July 2017, India

- TSRK Prasad, Dhruv Shekhawat, Sukanto Guha, Neena Goveas and **Bharat Deshpande**, (2016) Analysis of Impartial Quality Measurements on Indian Broadband Connections, 22nd National Conference on Communications (NCC 2016), 4 – 7 March, 2016, IIT Guwahati, India
- Prasad Talasila, Kartik Sathyanarayanan,Sukriti Tiwari Neena Govea; **Bharat Deshpande**, (2016) t-CSA: A fast and flexible CSA Implementation, 2nd Workshop on Intelligent Transport Systems, 8th International Conference on Communication Systems &. NetworkS. *(COMSNETS 2016*), 5 – 9 January 2016. Bangalore, India.
- Mit Shah, Dhruvesh Parikh & **Bharat Deshpande**, (2016) Movie Recommendation System Employing Latent Graph Features in Extremely Randomized Trees, 2nd International Conference on Information and Communication Technology for Competitive Strategies, 4-5 March 2016, India
- Divyansh Khanna, Rohan Sahu, Veeky Baths and **Bharat Deshpande**, (2015) Comparative Study of Classification techniques (SVM, Logistic Regression and Neural Networks) to predict the prevalence of Heart Disease, 7th International Conference on Machine Learning and Computing (ICMLC 2015), March 19-20, 2015 in Florence, Italy
- Ashish Nanda, Rohit Omanwar, **Bharat Deshpande**, (2014) "Implicitly Learning a User Interest Profile for Personalization of Web Search using Collaborative Filtering", The proceedings of the 14th IEEE/WIC/ACM International Conference on Web Intelligence (WI 2014). Published (electronically) by IEEE Computer Society Press.
- Ashish Nanda, Rohit Omanwar, **Bharat Deshpande**, (2014) "Personalized Web Page Recommendation Using a Graph Based Approach to Implicitly Find Influential Users", Proceedings of the 2014 International Conference on Intelligent Computing, Communication & Devices (ICCD-2014). Published by Springer in the book series "Advances in Intelligent Systems and Computing"(ISSN: 2194-5357, Springer).
- Ashish Nanda, Rohit Omanwar, **Bharat Deshpande**, (2014) "User Profiling for Personalized Ranking of Search Results", Proceedings of the Eighth International Conference on Data Mining and Warehousing (ICDMW 2014) under ICIP 2014, Bangalore.
- Ramprasad Joshi, **Bharat M. Deshpande**, Paritosh Gote, (2014) Objective Dimension and Problem Structurein Multiobjective Optimization Problems. Applications of Evolutionary Computation - 17th European Conference, EvoApplications 2014, Granada, Spain, April 23-25, 2014, Revised Selected Papers. Lecture Notes in Computer Science 8602, 639-650, Springer 2014
- Kartikeya Bhardwaj, **Bharat M. Deshpande**, K-Algorithm: (2013) An Improved Booth's Recoding for Optimal Fault-Tolerant Reversible Multiplier. 26th International Conference on VLSI Design and 12th International Conference on Embedded Systems, Pune, India, January 5-10, 2013
- Ramprasad Joshi, **Bharat Deshpande**: (2013) Scalability of Population-Based Search Heuristics for Many-Objective Optimization, In: Anna Esparcia-Alcàzar, (Ed.), Applications of Evolutionary Computation,16th European Conference, EvoApplications 2013, Vienna, Austria, April 3-5, 2013. Proceedings, Springer, Heidelberg. pp. 479-488, 2013
- Upadhyay N., **Deshpande, B. M**., and Agrawal, V. P. (2010) CFMEA: Concurrent Failure Mode and Effect Analysis, 2nd International Conference on Reliability, Safety, and Hazard – Risk-Based Technologies and Physics of Failure Methods, December 14-16, 2010, Mumbai pp. 399-405, 2010.
- Mangesh Bedekar, **Bharat M. Deshpande**, (2010) Pralav Desai, Vijay Mohan Reddy Borra, On the enhancement provided by preceding and Succeeding Auxiliary Word to Search Engines to Categorize search results, Proceedings of International Conference on Computing Communication and Information Technology Applications, VLB

Janakiammal College of Engineering and Technology Coimbatore, India. January 21-23. 2010

- Mangesh Bedekar, **Bharat M. Deshpande**, (2008) Snigdha Gupta, Saral Jain, Mohammad Kazi, Komal Kapoor (2008): Personalization of Web Search Results Based on User Profiling, Proceedings of 1st International Conference on Emerging Trends in Engineering and Technology, G. H. Raisoni College of Engineering, Nagpur, India. July 16-18, 2008. pp. 1114 - 1119.
- Mangesh Bedekar, **Bharat M. Deshpande**, Ramprasad Joshi (2008): Web Search Personalization by User Profiling, Proceedings of 1st International Conference onEmerging Trends in Engineering and Technology, G. H. Raisoni College of Engineering, Nagpur, India. July 16-18, 2008. pp. 1099 – 1103
- Ravikumar L, T S B Sudarshan and **Bharat Deshpande**, (2006) Matching Proximity of Scheduling Algorithms for Grid Computing, 3rd International Conference on Systemics, Cybernetics and Informatics (ICSCI), Hyderabad, India, Jan. 2006.
- Delivered a key note lecture on **Set Valued Mappings** at annual convention of Gujarat Ganit Mandal, held at Billimora in October 2000

Posters

- Anshuli Patil, Prasad Talasila, Neena Goveas and **Bharat Deshpande** (2015) "A Study of ISP Networks at Indian IXPs", COMSNETS 2015

- Sourabh Gawande, Prasad Talasila, Amrita Suresh, Neena Goveas and **Bharat Deshpande (**2015) "Timelapse of AS-Level Topology Graphs Using BGP Advertisements**"**, COMSNETS 2015

- Dhruv Shekhawat, Sukanto Guha, Prasad Talasila, Neena Goveas and **Bharat Deshpande** (2015) "Illustrative Analysis of Throughput Variations for Indian Broadband Users", COMSNETS 2015

Honors

- Distinguished Faculty Award at BITS Alumni Global Meet, 2011
- Post Doctoral Fellowship from Department of Atomic Energy
- Secured Third Rank in Mumbai University in M.Sc.
- Invited to attend Microsoft Faculty Summit at Microsoft Research Labs, Redmond, 2016

Memberships

- Member of Board of Studies of College of Engineering, Pune, India
- Vice President of the Goa Chapter of Computer Society of India, 2011
- ACM Professional Member
- Member of Academic Audit Committee for Department of Computer Science, Goa University, India
- Member of Board of Studies of Undergraduate program in Computer Science, Goa University, India
- Member of Board of Studies of Chowgule College, Goa, India