Faculty Profile

Brief Profile

Faculty Photo

I am Jyoti Shetty, an Associate Professor in the Department of Computer Science and Engineering at RV College of Engineering (RVCE), Bengaluru, India. I have been a part of RVCE since 2009. Prior to joining RVCE, I worked as a Software Engineer and Trainer at Global Edge Software Pvt. Ltd., and as a Lecturer at SGGSIET Nanded, gaining valuable experience in both industry and academia.

My primary research interests are in the areas of Artificial Intelligence, Machine Learning, and big data analytics. Since 2017, I have been actively collaborating with LexisNexis Inc., working extensively on HPCC Systems, a leading distributed data processing platform. My involvement in various projects and research initiatives using HPCC Systems has led to impactful contributions in the field.

For more details on my projects and publications, particularly related to HPCC Systems, please visit here.

Personal Information

- **Name:** Dr. Jyoti Shetty
- **Designation:** Associate Professor
- **Department:** Department of Computer Science and Engineering
- **Email:** jyothis@rvce.edu.in
- **Phone:**

Google Scholar : https://scholar.google.com/citations?user=LQjUpZAAAAAJ
Scopus: https://www.scopus.com/authid/detail.uri?authorId=55994536900

Domain of Expertise

Research Focus

- **Primary Area:** Artificial Intelligence(AI), Machine Learning(ML), Datamining, Big Data Analytics
- **Allied Areas:**
  - Big Data Analytics, Anomaly Detection, Healthcare, Legal

Academic Qualifications

- **Ph.D.**: [Engineering Discipline], [University], [Year] *(Thesis Title optional)*
- **M.Sc./M.Tech**: Compute Science and Engineering, VTU, 2012
- **B.E./B.Tech**: Compute Science and Engineering, VTU, 2003

Professional Experience

	Experience		
S.No	**Institute/College/Industry**	**Job Title**	**Duration**
1.	Guru Nanak Dev College of Engg. Bidar	Lecturer	3 months
2.	Shri Guru Gobind Singhji Institute of Engg. And Tech. , Nanded.	Lecturer	3 years
3	GlobalEdge Software Ltd. Banglore	Software engineer/ Trainer	2 years
4	RV College Of Engineering Banglore	Lecturer, Assistant Professor, Associate Professor	2009-till date

Publications & Patents

Journal Publications

1. Arya Adesh, Shobha G, Jyoti Shetty, Lili Xu, "Local outlier factor for anomaly detection in HPCC systems", Journal of Parallel and Distributed Computing, Volume 192, 2024, 104923, ISSN 0743-7315, https://doi.org/10.1016/j.jpdc.2024.104923. (SCIE Indexed)
2. Joseph, K.; Shetty, J.; Sharma, A.K.; van Staden, R.; Wasantha, P.L.P.; Small, S.; Bennett, N. Leak and Burst Detection in Water Distribution Network Using Logic- and Machine Learning-Based Approaches. Water 2024, 16, 1935. https://doi.org/10.3390/w16141935. (SCIE Indexed)
3. Jyoti Shetty and G. Shobha, "Handling Class Imbalance in Google Cluster Dataset Using a New Hybrid Sampling Approach," Journal of Advances in Information Technology, Vol. 14, No. 5, pp. 934-940, 2023. (Q3 Scopus Indexed & WoS Indexed)
4. Mayank Agarwal, Abhay H. Kashyap, G. Shobha, Jyothi Shetty, and Roger Dev, "Causal Inference and Conditional Independence Testing with RCoT ", Journal of Advances in Information Technology, Vol. 14, No. 3, 2023 pp. 495-500. (Q3 Scopus Indexed & WoS Indexed)
5. Maheshwari, R., Sriram Praveen, V. A., Shobha, G., Shetty, J., Chala, A., & Watanuki, H. (2023). Illicit activity detection in bitcoin transactions using timeseries analysis. International Journal of Advanced Computer Science and Applications, 14(3) doi:https://doi.org/10.14569/IJACSA.2023.0140302 (Q3 Scopus Indexed & WoS Indexed)
6. Jyoti Shetty, Karthik Cottur, G. Shobha, and Y. R. Prajwal, " A Weighted Ensemble of VAR and LSTM for Multivariate Forecasting of Cloud Resource Usage ", Journal of Advances in Information Technology, Vol. 14, No. 2, 2023, pp 264-270. (Q3 Scopus Indexed & WoS Indexed)
7. Pasha Syed, Abdu Rehaman, Rahul Anbalagan, Anagha S. Setlur, Chandrashekar Karunakaran, Jyoti Shetty, Jitendra Kumar, and Vidya Niranjan. "Implementation of ensemble machine learning algorithms on exome datasets for predicting early diagnosis of cancers." BMC bioinformatics 23, no. 1 (2022): 1-24. (SCIE Indexed).

8. Cummaragunta SN, Srinandan KS, Shetty J, "Wrong side driving detection", Int. J. Technol. Emerg. Sci. 2022; 2(3): 5-9.

9. Yatish, HR; Shubham, Milind Phal; Hukkeri, Tanmay Sanjay; Xu, Lili; Shobha, G; Shetty, Jyoti; Chala, Arjuna; ,Massively scalable density based clustering (DBSCAN) on the HPCC systems big data platform, IAES International Journal of Artificial Intelligence,10,1,207,2021. (Q2 Scopus Indexed)

10. Karthik, Ambu; Shetty, Jyoti; Shobha, G; Dev, Roger; ,Implementation of generative adversarial networks in HPCC systems using GNN bundle, IAES International Journal of Artificial Intelligence,10,2,374,2021. (Q2 Scopus Indexed)

11. Bhadauria, Anurag Singh; Bain, Atreya; Shetty, Jyoti; Shobha, G; Chala, Arjuna; Clements, Jeremy; ,Design and Implementation of HSQL: A SQL-like language for Data Analysis in Distributed Systems,International Journal of Advanced Computer Science and Applications,12,11,,2021. (Q3 Scopus Indexed and WoS Indexed)

12. Prapulla, SB; Shetty, Jyoti; Kulkarni, Vinay A; Subramanya, KN; Uma, BV; Kumar, P Ramakanth; Shobha, G; ,Design and Analysis of an Online Course using Moodle Platform,Journal of Engineering Education Transformations,33,,270-274,2020. (Q3 Scopus Indexed)

13. Shetty, Jyoti; Babu, B Sathish; Shobha, G; ,Proactive cloud service assurance framework for fault remediation in cloud environment.,International Journal of Electrical & Computer Engineering (2088-8708),10,1,,2020. (Q2 Scopus Indexed)

14. A Sudarshan, S Dirisam, J Shetty, GRS NS; ,Review of Protocols used in Enterprise Networks,International Journal of Engineering Research & Technology,8,5,53-56,2019.

15. Shetty, Jyoti; Upadhaya, Sahana; Rajarajeshwari, HS; Shobha, G; Chandra, Jayant; ,An empirical performance evaluation of docker container, openstack virtual machine and bare metal server,Indonesian Journal of Electrical Engineering and Computer Science,7,1,205-213,2017. (Q3 Scopus Indexed)

16. Sahana Upadhya, Jyoti Shetty, Raja Rajeshwari H S, Dr. G Shobha; ,A State-of-Art Review of Docker Container Security Issues and Solutions,American International Journal of Research in Science, Technology, Engineering & Mathematics,17,1,33-36,2017.

17. Shetty, Jyoti; Anala, MR; Shobha, G; ,An approach to secure access to cloud storage service,International Journal of Research,2,1,364-368,2015.

18. Ankush Sharma, Jyoti Shetty; ,Advanced Medical Image Viewer for X-Ray Images,International Journal of Innovative Technology and Research,,,,2015.

19. Jyoti Shetty, Shobha G, Anala M R; ,A State-of-art Comparison of Opensource IaaS Cloud Softwares,American International Journal of Research in Science, Technology, Engineering & Mathematics,10,1,26-30,2015.

20. Jyoti shetty, Anala M R, Shobha G; ,A Study on Cloud Forensics: Challenges, Tools and CSP Features,CiiT, Biometrics and Bioinformatics,6,6,149-153,2014.

21. Shetty, Jyoti; Anala, MR; Shobha, G; ,A Survey on Techniques of Secure Live Migration of Virtual Machine.,International Journal of Computer Applications,39,2012.

Conference Papers

1. J. C, A. U, D. De Hilster, H. Watanuki, S. G and J. Shetty, "Scalable Analysis of English Dictionary Files on HPCC Systems Big Data Platform," 2024 9th International Conference on Big Data Analytics (ICBDA), Tokyo, Japan, 2024, pp. 328-333, doi: 10.1109/ICBDA61153.2024.10607199.

2. A. A. Pai, M. M, D. Giridhar, S. Thomas, J. Shetty and S. G, "Semantic Type Detection or Unlabelled Dataset," *2024 IEEE International Conference for Women in Innovation, Technology & Entrepreneurship (ICWITE)*, Bangalore, India, 2024, pp. 611-617, doi: 10.1109/ICWITE59797.2024.10503084.

3. V. R. P and J. Shetty, "TicketTrace: Intelligent High Parity Ticket Detection Through Deep

Learning Techniques," *2023 7th International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS)*, Bangalore, India, 2023, pp. 1-6, doi: 10.1109/CSITSS60515.2023.10334156.

4. Surya, Y., J. Shetty et al. "Auto-Detection of Field-Level Dependencies in Data Workflow on a Distributed Platform." *International conference on soft computing for problem-solving*. Singapore: Springer Nature Singapore, 2023.

5. Sharan, Sarthak, J. Shetty et al. "Analyzing Blockchain Data to Detect Bitcoin Addresses Involved in Illicit Activities Using Anomaly Detection." *International Conference on Data Science and Applications*. Singapore: Springer Nature Singapore, 2023.

6. Dasu, S. G and J. Shetty, "Analysis of the Surface Water Quality in the State of Karnataka using Distributed Platform," *2023 9th International Conference on Advanced Computing and Communication Systems (ICACCS)*, Coimbatore, India, 2023, pp. 284-287, doi: 10.1109/ICACCS57279.2023.10112732.

7. A. Anand, M. Hariprasad, N. Dey, S. S, J. Shetty and S. G, "Examining Deep Learning Methods For The Detection Of Sepsis," 2022 6th International Conference On Computing, Communication, Control And Automation (ICCUBEA, Pune, India, 2022, pp. 1-6, doi: 10.1109/ICCUBEA54992.2022.10010584.

8. Karthik, Ambu; Mishra, Harsh; Jayanth, S; Shobha, G; Shetty, Jyoti; ,Performance Skew Prediction in HPCC Systems,2022 12th International Conference on Cloud Computing, Data Science & Engineering (Confluence), ,94-97,2022.

9. Jenni, Varsha R; Dua, Akhil; Shobha, G; Shetty, Jyoti; Dev, Roger; ,Hybrid Density-based Adaptive Clustering using Gaussian Kernel and Grid Search,2021 International Conference on Recent Trends on Electronics, Information, Communication & Technology (RTEICT),221-226,2021.

10. Thejas, BU; Dhulkhed, Sreedhar S; Shetty, Jyoti; Swamy, Shantha Ranga; ,Poverty Detection using Satellite Imagery,2021 Fifth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)(I-SMAC),1293-1298,2021.

11. Shourya, TR; Gowthami, T; Mangal, Mayank; Panda, Meghna; Sunanda, C; Shetty, Jyoti; ,Collaborative Filtering Techniques for Recency Frequency Monetary Analysis,2020 Second International Conference on Inventive Research in Computing Applications (ICIRCA),520-524,2020.

12. Mishra, Harsh; Chala, Arjuna; Camper, Dan; Shetty, Jyoti; ,Data Skew Profiling using HPCC Systems,Proceedings of the 2019 International Conference on Big Data and Education,66-69,2019.

13. Shetty, Jyoti; Sajjan, Rahul; Shobha, G; ,Task resource usage analysis and failure prediction in cloud,2019 9th International Conference on Cloud Computing, Data Science & Engineering (Confluence),342-348,2019.

14. Vardhan, KS Amogh; Jakaraddi, Manjunath; Shobha, G; Shetty, Jyoti; Chala, Arjuna; Camper, Dan; ,Design and development of iot plugin for hpcc systems,2019 IEEE 4th International Conference on Big Data Analytics (ICBDA,,,158-162,2019.

15. Prasad, Akshar; Dev, Roger; Shobha, G; Shetty, Jyothi; ,Machine Learning Techniques to Detect Fraud in Credit Cards on the HPCC Systems Platform,2019 4th International Conference on Computational Systems and Information Technology for Sustainable Solution (CSITSS),4,44568,2019.

16. Hukkeri, Tanmay Sanjay; Phal, Shubham Milind; Shetty, Jyothi; Mohammed, Naweed; ,Massively Scalable Image Processing on the HPCC Systems Big Data Platform,Proceedings of the 3rd

International Conference on Software Engineering and Information Management,26-31,2020.

17. Sathvik, KR; Shobha, G; Shetty, Jyoti; Camper, Dan; ,Design and Implementation of Octave Plugin for HPCC Systems,2019 4th International Conference on Computational Systems and Information Technology for Sustainable Solution (CSITSS),4,,44566,2019.

18. Suryanarayanan, A; Chala, Arjuna; Xu, Lili; Shobha, G; Shetty, Jyoti; Dev, Roger; ,Design and Implementation of Machine Learning Evaluation Metrics on HPCC Systems,2019 4th International Conference on Computational Systems and Information Technology for Sustainable Solution (CSITSS),4,,44568,2019.

19. Shetty, Jyoti; Shobha, G; ,An ensemble of automatic algorithms for forecasting resource utilization in cloud,2016 Future Technologies Conference (FTC),301-306,2016.

20. Sushma, M; Niroop, RS; Shetty, Jyothi; ,A lightweight performance measurement framework for a Virtual Machine on cloud,2016 International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS),404-408,2016.

21. Sandeep, KB; Raghavendra, M; Shetty, K Jyoti; ,Performance analyzer: An approach for performance analysis of enterprise servers,2016 IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT),,,480-484,2016.

22. Shetty, Jyothi; Saxena, Shiva; Shobha, G; Rastogi, Jagat; ,Monitoring OpenStack Services Using Nagios, Emerging Research in Computing, Information, Communication and Applications,485-495,2015.

23. Anchalia, Prajesh P; Gupta, Pracheta; Shetty, Jyoti; ,A customized dashboard for vm provisioning using openstack,2015 7th International Conference on Computational Intelligence, Communication Systems and Networks,,,177-182,2015.

24. Anala, MR; Shetty, Jyoti; Shobha, G; ,A framework for secure live migration of virtual machines,2013 International Conference on Advances in Computing, Communications and Informatics (ICACCI),243-248,2013.

Books/Book Chapters: --

Patents : --

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

1. "Infrastructure as Service – Automated VM provisioning and Service Assurance" by CISCO Systems, Pvt. India Ltd – 7.9 Lakhs, 2014-15.(Completed)
2. "An Empirical Performance Evaluation of Docker Containers, Virtualization and Baremetal" by CISCO Systems, Pvt. India Ltd – 7.9 Lakhs, 2016-17(Completed)
3. "Automated Data Skew Profiler" by LexisNexis Risk Solutions, HPCC systems, 2017-2018(Completed).
4. "MQTT Protocol Support for ROXIE", by LexisNexis Risk Solutions, HPCC systems, 2017-2018(Completed).
5. "Extending ML Library on HPCC Platform", by LexisNexis Risk Solutions, HPCC systems, 2017-2018.
6. "OpenCV Interface for HPCC System", by LexisNexis Risk Solutions, HPCC systems, 2017-2018.

7. UX Framework Google Play Instant Apps and Bundle Dynamic Delivery, Samsung Research, 2021-22.

Ongoing & Completed Consultancy Projects

1. "Threat Detection using Deep Packet Inspection for Wire Speed Network" by Nihon Communications Pvt. Ltd- 1.00 Lakhs, 2014-15.
2. Analyzing Blockchain data to detect illicit transactions made using Bit coin on HPCC Systems, by LexisNexis Risk Solutions, HPCC systems, 2022-2023.
3. Auto detect field level dependency in an ECL data workflow by LexisNexis Risk Solutions, HPCC systems, 2022-2023.
4. Create a Knowledge Graph to Understand Potential Customers and Distributors, by Resha Mandi Pvt. Ltd. 2022-23
5. "Deployment and Analysis of Dictionary files on HPCC Systems" by LexisNexis Risk Solutions, HPCC systems, 2023-24.
6. "Enhancing Legal Assistance through Data Enrichment with HPCC Systems", from LexisNexis Risk Solutions, 2024-25.
7. "Implement Conditional Clean-up after Regression Test", from LexisNexis Risk Solutions, 2024-25.
8. "Building Data 360 degree view using HPCC Systems", from Profitops Inc, 2024-25.

Professional Memberships

- IEEE

Awards & Recognitions

- HPCC Systems Community Recognition Award, HPCC Systems, Oct 2024
  https://badgr.com/public/assertions/r59RykNASK66BrIGYc8yjA?identity__email=jyothis@rvce.edu.in
- Best Young Teacher Award, ISTE RVCE, 2024
- Best paper presentation award, ICBDSC 2023, 2023
- Certificate of Excellence, Samsung Prism, 2021
- Top Performing Mentor, NPTEL, 2021
- Top performer in FDP 301X, IITB, 2018
- Top performer in FDP, IIT Bombay, 2016
- Top 2% marks in NPTEL course on "Data mining", Jan-April 2018.

Student Supervision

- **Ph.D. Candidates:**
- **M.Tech/M.Sc. Students:** 01
- **Undergraduate Research Mentees:** 32

Professional Roles

- **Editorial Board:**

- **Chair/Committee Member:**
- **Industry Advisor:**

Teaching

Core Courses: [Current semester]

- [CD343AI] Design and Analysis of Algorithms
- [HS248AT] Universal Human Values

Advanced/Lab Courses:

- Big Data Systems Lab

Professional Roles

Responsibilities

- **Academic:** Minor Project Coordinator
- **Administrative:** Department Library Incharge, CISSS CoE Coordinator

External Connect

- Member of BoS / BoE / Academic Council / Governing Body etc