Faculty Profile Brief Profile (Few Paragraphs)

Personal Information

• Name: Dr. Prapulla S B

• **Designation:** Associate Professor

• Department: Computer Science & Engineering

• Email: prapullasb@rvce.edu.in

• **Phone:** 8310258463

• Google Scholar-https://scholar.google.com/citations?user=ivvkMQkAAAAJ/

• ResearchGate - https://www.researchgate.net/profile/Prapulla-Shivraj/

• LinkedIn: https://www.linkedin.com/in/dr-prapulla-s-b-a1b5429a

• ORCID: https://orcid.org/0000-0002-5549-3637

Domain of Expertise

Research Focus

- Primary Area: Sensor Networks, Mobile agents for Sensor Networks
- Allied Areas:

Opportunistic Computing, Big Data and Analytics, AI and Machine learning, Security and itinerary in WSN, Block chain

Academic Qualifications

- **Ph.D.**: Computer Science & Engineering , VTU, 2023 (Energy Efficient techniques to improve QoS using Multi mobile agents)
- M.Tech: CSE, VTU, 2009
- **B.E**: CSE, 2007

Professional Experience

Experience						
S.No	Institute/College/Industry	Job Title	Duration (From- To)			
1.	APS COLLEGE OF	Lecturer	2008-2012			

Fa culty Photo

		ENGINEERING		
	2.	R V College of Engineering	Asst. Professor	2012-2024
;	3	R V College of Engineering	Associate Professor	2024 to till date

Publications & Patents

Journal Publications

- Manjunath A E ,Vinay Hegde , Prapulla S B , N.K Srinath ,"An Interactive Tool for Knowledge Representation and Sharing on Android Operating System , International Journal of Advanced research in Computer and Communication Engineering ,Vol 2 , Issue 1 ,Jan 2013 ,P 938 944.
- Prapulla S B, Dr. Shobha G, Dr. Tanuja T C, Ensuring Security In An Energy Efficient LEACH, IJARSE, Vol. No.3, Issue No.8, August 2014, ISSN-2319-8354(E) pp-88-101
- Prapulla S B, Dr. ShobhaG, Dr. Tanuja T C, "SMART REFRIGERATOR USING INTERNET OF THINGS" Journal of Multidisciplinary Engineering Science and Technology (JMEST) ISSN: 3159-0040 Vol. 2 Issue 7, July 2015, pp 1795-1801
- KA Monika, Nikitha Rao, SB Prapulla, G Shobha, "Smart dustbin-an efficient garbage monitoring system", International Journal of engineering science and computing June 2016, Vol 6, issue 6, pages 7113-7116
- Prapulla S B, Trisha Venkatesh, Jayanth Chandra, Sindhu B Dinesh, Vindhya Nagaraj "Mobile Agent Data Security using Triple Data Encryption Standard, "International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, Number 22 (2017) pp. 11824-11829 © Research India Publications. (scopus indexed journal)
- SA prapulla S B, P govindarajan, Shobha G, Karthilk, "Cost Effective, Solar Powered, Low Bandwidth (11 Mbps 802.11b) WiFi Access Point Network for Voice (VoIP) and Data Traffic from Villages", ijesc Vol:10 (2), 2020, PP 24702-24706
- Prajwal V Atreyas, S Yamuna, Pramod Khadse, SB Prapulla, "Platform Migration: Data Centers to Cloud Architectures", United International Journal for Research & Technology (UIJRT), Volume 2, Issue 8, 2021, Pages 93-97
- Prapulla S B, Jyoti Shetty, Vinay A Kulkarni, K N Subramanya, Uma B V, Ramakanth Kumar P, Dr. Shobha G, "Design and Analysis of an Online Course using Moodle Platform", Journal of Engineering Education Transformations, Volume, No, Month 2020, ISSN 2349-2473, eISSN 2394-1707.
- Prapulla S. B., Shrishah S., Shobha G, Thanuja T. C., Prakash R., "A MATHEMATICAL MODELLING FOR EFFECTIVE MOBILE AGENT ITINERARY USING FARTHEST NODE FIRST NEXT NEARER NODE ALGORITHM", wjert, 2022, Vol. 8, Issue 1, pp 293-307.
- Prapulla S. Basappa, Shobha Gangadhar, Tiptur Chandrashekar Thanuja, "Energy-efficient data-aggregation for optimizing quality of service using mobile agents in wireless sensor network", IJECE journal, Vol 12, No 4, August 2022, pp 3891 3899A
- Siddhant Shrivastava, SB Prapulla, "<u>Comprehensive Review of Load Testing Tools</u>", International Research Journal of Engineering and Technology, 2020, Vol 7, Issue 3392-3395, Pages 43
- Prapulla S B, Dr. Shobha G, Dr. Tanuja T C, "Simplified Computational Model for Energy-Efficiency in Wireless Sensor Network", under review in Wireless personal communications Journal(Q2)

- Prapulla SB, Subramanya K N, Geetha K S, Sreelakshmi K, Vinay V Kulkarni, Ramakanth Kumar P, Igniting the Engineering Educators and Learners through Heutagogy, a Transformative Learning, Journal of Engineering Education Transformations, Volume No 38, January 2025, Special Issue 2, eISSN 2394-1707, 562–569. https://doi.org/10.16920/jeet/2025/v38is2/25082(Q2)
- Thakur, S., Amrutsagar, L. R., Patil, A., Kulkarni, V., Prapulla S B., Malathi, P., & Nitnaware, P. T. (2025). Assessment of Internship Competencies and Learning Outcomes Based on AICTE's Examination Reforms Policy 2018 for Sustainable learning: A Case Study. *Journal of Engineering Education Transformations*, 38, 303–313. https://doi.org/10.16920/jeet/2025/v38is2/25036(Q2)

Conference Papers

- 1. Deeksha Shravani, YR Prajwal, SB Prapulla, NS Girish Rao Salanke, G Shobha, Syed Farhan Ahmad, "<u>A machine learning approach to water leak localization</u>", 2019 IEEE 4th International Conference on Computational Systems and Information Technology for Sustainable Solution (CSITSS), Volume 4 Pages 1-6
- 2. Deeksha Shravani, YR Prajwal, SB Prapulla, Girish Rao Salanke NS, G Shobha, "<u>Cloud-Based Water Leakage Detection and Localization</u>", 2019 IEEE International Conference on Cloud Computing in Emerging Markets (CCEM), Pages 86-91
- 3. SB Prapulla, Dipayan Sinha, C Guruprasad, G Shobha, PC Thanuja, "<u>Multi Mobile Agent Based Remote Health Monitoring</u>", 2019 IEEE International Conference on Cloud Computing in Emerging Markets (CCEM), Pages 25-31
- 4. Shubham Milind Phal, Girish Rao Salanke NS, G Shobha, SB Prapulla, "<u>Intelligent Meters for Urban Domestic Water Consumption</u>", 2019 IEEE International Conference on Cloud Computing in Emerging Markets (CCEM), pages 59-63
- 5. Sriram N Rao, SB Prapulla, G Shobha, Shivani Hariprasad, Maghup Gupta, Sai Aneesh Reddy, "<u>Using virtual reality to boost the effectiveness of brain-computer interface applications</u>", 2019 4th International Conference on Computational Systems and Information Technology for Sustainable Solution (CSITSS) Vol 4 Pages:1-4
- 6. Manjunath A. E, Vinay Hegde, Prapulla S B, N K Srinath, "Design and Development of Efficient Information Retrieval using Crawling, Indexing and Ranking " Third International Conference on Computational Intelligence and Information Technology CIIT 2013, Elsevier Publication, PP 247 252.
- 7. Prapulla S B; Chandra, Jayanth; Mudakavi, Madhwesh B.; Shobha G; Thanuja T C: Multi Mobile Agent itinerary planning using Farthest Node First Nearest Node Next (FNFNNN) technique. En: 2016 International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS), IEEE, oct 2016. ISBN 978–1–5090–1020–2, p. 105–111(citation 1)
- 8. Prapulla S B, Sriram, Vivek Herur, "Road Quality Analysis and Mapping for faster and safer travel", International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS 2017, SKR Engineering College, Poonamallee, Varadharajapuram, Tamil Nadu, Aug 1st and 2nd 2017
- 9. Pradyot Aramane, Akshay Bhattad, Madhwesh.M, Nishant Aithal Akshay.P, Prof.Prapulla S.B And Dr.Shoba.G, "IoT and Neural Network Based Multi Region And Simultaneous Leakage Detection In Pipelines", Indian Technology Congress 2017(Awarded the best paper award)
- 10. Prapulla S B, Sharath Bhat and Shobha G, "Framework for Detecting Metamorphic Malware based on Opcode Feature Extraction" presented this paper in International Conference on Computation System and Information Technology for Sustainable Solutions (CSITSS).

- 11. Prapulla S B, Badarinath K B, Shreya Trakroo, Harshit Dhoot, Bhumika Naidu CR, Ramakanth Kumar P, "Sustainable Energy Harvesting from Footsteps:Unleashing the Potential of Piezoelectric Sensors", 6th *International Conference* on. *Inventive Computation and Information Technologies*. ICICIT 2024. 16-17, April 2024 Bangkok, Thailand
- 12. Varsha S , Kinshuk Agarwal , Kushagra Awasthi , Prapulla S B , Deepamala N ,Prakash R , Jayalatha "Investigating Innovative Approaches to Learning-Gradient Descent and Regression for Millenials",ICEM 2024: International Conference on Educating post Millennials 2024, Saveetha Teaching Learning Centre (STLC), Saveetha Engineering College, Chennai, India, May 17, 2024 1st Edition, First Published Jan 2025, ImprintCRC Press, Pages 18-23, https://doi.org/10.1201/9781003587538
- 13. Prapulla S B, Shanta Rangaswamy, Malavika Hariprasad,, Neha N, Nimisha Dey, Pratiksha Narasimha Nayak G, "Unfolding Course delivery with Identity, Assign, Assess, Analyze(IAAA): A powerful experiential tool.", Technology for Education-T4E conference, December 2024-Springer Lecture Notes in Educational Technology (LNET)
- 14. Karthik Prakash, Vaibhav Soin, Mandava Sai Anirudh, Harshith Kothari, Prapulla S B, DeepaMala N, Ramakanth Kumar P, K N Subramanya, "Visualization and Gamification for Design of Operating Systems", TECH-EDU 2024 4th International Conference on Technology and Innovation in Learning, November 13-15, 2024, Teaching and Education, Khalifa University, Abu Dhabi, United Arab Emirates
- 15. Prapulla S B , Soumya A , Deepamala N , S Dhanush , S Mohammed Ashiq , S Prajwall Narayana , Sumith S Tantry, EduConnect : A Smart Solution for Streamlined School Administrations, ICTIS, Thailand, 6th April 2025
- 16. Shreyachakote, Vanshikak, Anishshaw Prapulla, Anjaneyag, Tanishs, "To develop Multimodal Urban Transport Networks for Inclusive Mobility in Growing Cities", International Conference on Innovations and Sustainability in Civil Engineering: Shaping Tomorrow's Infrastructure, 16th May 2025

Books/Book Chapters

1. [Author(s)], [Book Title], [Publisher], [Year].

Patents [Filed / Published / Granted]

- [Patent Title], [Patent No.], [Year] Nil
 Copyright
- 1973 1386/2024-CO/L L-145629/2024 21-03-2024 Snake and Ladder game for active learning through active engagement in learning Literary/ Dramatic DR PRAPULLA S B ,DR SHABINA MODI ,DR VINAY KULKARNI

R & Grants & Consultancy Projects

Ongoing & Completed Research Projects

"SmartThings Device Kit on Simulators", SAMSUNG(1 lakh) Jan 23 to Jun 23

'IoT | Energy Saving using People Activity & Count obtained using Computer Vision, SAMSUNG(1 lakh) 2018-2020

Completed Consultancy Projects

- Smart Water Management System -IBM- (Co-PI), 2018-2021
- Water Leakage Detection Sai Sanket Joint Venture-(Co-PI), 2016-2018
- Smart Pantry Management system- Insta Kitchen. 2018-19
- CCNA exam clearing BoT CISCO systems. 2017-18
- Working with Collins Udanoor, Professor, University of Nigeria, on the project: A
- Smart Internet of Things (IoT) Fresh Water Fish Pond Water Quality Monitoring and
- Control System for Yield Prediction-November 2022 onwards-ongoing

Professional Memberships

IEEE, IUCEE Honorary member & ISTE

Awards & Recognitions

- 1. 'Certificate of Excellence' for successful completion of the project "SmartThings Device Kit on Simulators" 2023
- 2. **'Certificate of Excellence'** for successful completion of the project titled 'IoT | Energy Saving using People Activity & Count obtained using Computer Vision., Samsung 2022
- 3. Best white paper award for the paper titled" LOW COST VoIP, WiFi BASED VOICE COMMUNICATION FACILITY IN VILLAGES". 2016 by Nokia
- 4. Rasthrapathi Guide-awarded by the President of India- Shankar Dhayal Sharma, November 1994
- 5. Identified as judge (1st round) for evaluating proposals submitted to: The future of Higher Education-QS Reimagine Education. Received 50% discount (300\$) to attend the **QS Reimagine Education Awards & Conference**, at London UK during 9th to 11th December 2024. Evaluated 20 proposals.
- 6. Identified as judge (1st round) for evaluating proposals submitted to: The future of Higher Education-QS Reimagine Education. Received 50% discount (300\$) to attend the **QS Reimagine Education Awards & Conference**, at Abu Dhabi during 11th to 13th December 2023. Evaluated 7 proposals. Identified as judge (1st round) for evaluating proposals submitted to: The future of Higher Education-QS Reimagine Education. Received 50% discount (300\$) to attend the **QS Reimagine Education Awards & Conference**, at Abu Dhabi during 11th to 13th december 2023. Evaluated 7 proposals.
- 7. Received Teaching Learning Leadership Award,. from IUCEE during Nov 2023
- 8. Best/Deserving Case Study Report, at Mini Symposium on P2BL, organized by IUCEE (Indo US Collaboration for Eng. Education), held on 9th,10th November,2021
- 9. One of the top performers in the FDP conducted by IIT Bombay on "Use of ICT in Education for Online and Blended Learning". Received Excellence award and also won a SAP award of Rs.5,000
- 10. Completed this certification with 86% in "Mentoring Educator in Educational Technology" FDP301x 2018 IIT Mumbai

Achievements

- 1. Completed the Brent Felder Effective Teaching and Learning one year course from IUCEE May 2024 to May 2025 with 98.61%
- 2. Completed the 6 months Engineering Education Research (EER) course from IUCEE August 2024 to Jan 2025
- 3. Completed with distinction, the 6 months certification program **International Engineering Educator Certification Program** IIEECP signature program from IUCEE. started from July2022 till Jan 2022
- 4. Participated in Brent Felder series -2 modules Module 1: Motivating Adult Learners -Sep 2022. Module 2: Why Engineering Education Must Change-Oct 2022
- 5. Participating in Teaching learning- Brent Felder series(I year program)commencing from may 2024
- 6. Copyright granted: SNAKE AND LADDER GAME FOR ACTIVE LEARNING THROUGH ACTIVE ENGAGEMENT IN LEARNING Authors: Dr. vinay a Kulkarni, Dr. Prapulla S B, Dr. Shabina Jamir Modi Diary no. 1386/2024-CO/L
- 7. **Resource person for** Faculty Development Programme (FDP) on "Accreditation Process NBA with a Focus on Active Learning"-pedagogical practices for Millennial Learners.
- 8. Invited as Resource person and Conducted 5 days FDP/Workshop on AICTE/UGC LEARNING OUTCOMES-BASED CREDIT FRAMEWORK (LOCF) EXAMINATIONREFORMS WORKSHOP -2024 JISU, Kolkatta, from 9th Jan to 12th Jan 2024. Trained more than 50 faculty and also encouraged them to file the copy rights as outcome of the workshop.
- 9. Instructor/planning committee member and also evaluator for IUCEE "OnLine Teaching" Course FDP from (July to September 2020) for participants across India(350 participants)Attended ICTIEE 2021 (Virtual Annual Conference Jan 8 to 10 2021)
- 10. Participated in IUCEE Annual Leadership summit -July 2020, july 2021, offline during july 2022 and july 2024.
- 11. Delivered e-talk and also practical sessions on "ICT Tools for teaching Learning Process" in 5-Day Faculty Development Program on "OBE & Its Impact on Accreditation Process" on 7th july 2020
- 12. Delivered hands on session on "Exploring Moodle LMS for Online teaching" and on Screen Casto Matic -for staff members of Telecom Dept, SIT, Tumkur, on 17th July 2020,
- 13. Delivered a webinar on TPACK model to IUCEE OLT members in July 2020 iv) Delivered sessions for this "Online FDP on Moodle and its Features for Teaching Learning and Evaluation Process" from 27th to 31st july 2020
- 14. Instructor for IUCEE "OnLine Teaching" Course FDP from (July to September 2020) for participants across India (350 participants)
- 15. Delivered a session on Kirkpatrick model of Training Evaluation for the IUCEE Online teaching and Learning team on 1st Sep 2020
- 16. Session Chair for ICTIEE 2022 conference –track Technology Enhanced Learning
- 17. Resource person for the online course on "Creating Open Source Cloud-based Gnomio Moodle of your Own Subject for OBE", D. Y. Patil College of Engineering, Akrudi, Pune, April 15- June 30, 2019.
- 18. Resource person for two days workshop on "ICT enabled Teaching-Learning Process", under AICTE Share & Mentor Institutions (Margdarshan) Scheme, Srinivas Institute of Technology, Mangalore, 18-19 February 2019.
- 19. Resource person for "FDP on ICT Tools and Effective Research", AMC College of Engineering, Bengaluru, 28th January 2019.
- 20. Mentor in 'AICTE approved' Faculty Development Programme(FDP101X) on Foundation Program in ICT for Education, Aug Sep 2017.
- 21. Mentor in 'AICTE approved' Faculty Development Programme(FDP201X) on Pedagogy for Online and Blended Teaching-Learning Process, Sep-Oct 2017.
- 22. Resource person for two days workshop on Design thinking, Huetagogy and OBE at Dayanand Sagar college of Engineering, Bengaluru during August 2024. Around 300+ participants.

- 23. Hosted two webinars in IUCEE series
- 24. Conducted interviews for 125 + candidates -for ASM technologies C++.

Student Supervision

Ph.D. Candidates: NilM.Tech. Students: 10

• Undergraduate Research Mentees: 40

Professional Roles

PROGRAM COMMITTEE MEMBER /SESSION CHAIR:

ICTIEE 2020,2021, 2022, 2023, 2024, 2025

REVIEWER:

- Many IEEE conferences
- Urban Water journal
- Wireless personal communication journal
- JEET journal
- ICTIEE conference
- IEEE Internet of Things journal:

Teaching

Core Courses: [Current semester]

- [CS362AI] [NETWORK PROGRAMMING AND SECURITY]
- [CS222AI] [PRINCIPLES OF PROGRAMMING USING C]

Advanced/Lab Courses:

• NPS-Network Programming and security

Professional Roles

Responsibilities

Academic: [CIE Coordinator, Student Life cycle management(SLCM) Coordinator, Core committee member EL 1st year & Chief mentor-Advanced materials and for SDG 4]

Administrative: [ADLDCO Lab In-charge]

- SPOC for SAP SLCM coordination at college level since 2020- Resolving all issues related to CIE marks, students Login password issues of students and faculty(many in number)
- Uploading and updating the fast track registration and students registered for failed courses in SAP.
- Getting issues resolved regarding students/courses/modules not showing up in SAP for marks entry.
- 2) IUCEE CO-ORDINATOR for RVCE, NEP Team Lead, other activities coordination, IUCEE Network of Teaching and Learning Centres coordinator.
- SPOC for UCEE Infosys TEL Spring Board partnership.
- 3) IUCEE student chapter faculty Coordinator for various activities under the chapter. Coordinating with students for various activities of the 6 wings.

External Connect

Member - Academic Audit committee, DY Patil college of Engineering, Akurdi, Pune

- Co-ordinator /SPOC for collaboration with Indxo AI and RVCE(Industry 4.0)
- Collaboration with Dr. Amit Sata from Marwadi University, Rajkot, Gujarat for startup culture and block chain projects.
- Colloaboration with Dr. Vinay Kulkarni from DY patil college of Engineering, Pune for Research in Education technology and OBE