

PROFILE

Dr. SHILPA M. KABRA

(Dr. Shilpa S. Laddha)

Assistant Professor

E-mail : kabrageca@gmail.com

shilpakabra@geca.ac.in

Cell : +91-9422888879

Web : <https://www.shilpakabra.in>



Work Profile:

- **Assistant Professor, Computer Science & Engineering Department,** Government College of Engineering, Aurangabad –November 2025 till date
- **Assistant Professor, Department of Information Technology,** Government College of Engineering, Aurangabad –October 2011 to June 2025, Government College of Engineering, Amravati- June 2025 to November 2025
- **PhD Research Guide in Computer Science & Engineering** under the faculty of Science & Technology, Dr BA Marathwada University
- **NPTEL Translator,** Ministry of Human Resources Development (MHRD), Government of India

Qualifications:

- **Ph.D. - Computer Science & Engineering** awarded on **2 April 2019**, from Sant Gadge Baba Amravati University, Maharashtra, India
Thesis: Design and Implementation of Semantically Enhanced Information Retrieval using Ontology
- **M.E. - Computer Science & Engineering** from Government College of Engineering Aurangabad, Maharashtra (Dr. Babasaheb Ambedkar Marathwada University, Aurangabad) in 2007 with distinction
- **B.E. - Computer Science & Engineering** from Babasaheb Naik College of Engineering Pusad, Maharashtra (Amravati University, Amravati Maharashtra) in 2000

Domain Expertise:

- Artificial Intelligence & Machine Learning
- Information Retrieval
- Semantic Web Mining

- Internet of Things
- Artificial Neural Networks
- Data Mining

Patents:

- [1] “**Quantum-Resistant Encryption Chip For Iot Devices**” UK Design Patent Number 6487925 Grant Date -02/12/2025.
- [2] “**Intelligent Indoor Health Monitoring framework using low Energy Bluetooth Beacons**” Patent Number 202141024038 Published Date -11/06/2021.
- [3] “**Artificial Intelligence Based Computational Model For Spatial-Temporal And Emotional Reasoning of Humanoid Robots**” Australian Patent Number 2021102704 Granted Date -23/06/2021.
- [4] “**Optimised Skin care product recommendation system based on SVM based Machine Learning**” Patent Number 202141035032 Published Date -13/08/2021.

Copyrights:

- [1] “**Design and Implementation of Semantically Enhanced Information Retrieval using Ontology**” Registration Number SW-9785/2017 Dated -13/12/2017.
- [2] “**Advanced Design and Implementation of Semantically Enhanced Information Retrieval using Ontology**” Registration Number SW-10336/2018 Dated -03/04/2018.
- [3] “**Computer Software Work Dataset Analyzer**” Registration Number SW-20040/2025 Dated -07/01/2025

Books:

- [1] **Python Data Science**
ISBN: 978-81-996906-1-5 December 2025, Vaagai International Publications
- [2] **Hybrid Intelligent Systems for Information Retrieval**
ISBN: 97-8-1003-1879-74 November 2022, CRC Press, New York
- [3] **AI-Enabled Autonomous Network Control Using Reinforcement Learning**
ISBN: 978-81-996289-8-4 December 2025, Vaagai International Publications
- [4] **Semantic Intelligent Computing and Applications**
ISBN: 97-8-3110-7816-63 July 2023, De Gruyter, Berlin, Germany
- [5] **Consumer Loan Credit Risk Analyser Using Neural Networks**
ISBN: 978-3-3460-8366-1, November 2019
- [6] **Smart Risk Analyst: A Neural Networks Approach**
ISBN: 978-1-6467-8518-6, October 2019

Publications:

- [1] **"RSRFACG – A Framework for Recommendation System to Suggest the Course Grade using Filtering Technique and Association Rule Algorithm in Education Sector,"** Sunita Dol, P.M. Jawandhiya, and Shilpa Laddha, *January 2025 Journal of Engineering Education Transformations*, E-ISSN:2394-1707, Volume 38, doi: 10.16920/jeet/2025/v38is2/25015.
- [2] **"Designing an Efficient Novel Model to Enhance NLP-Driven Blockchain Analytics by Integrating Multimodal, Sentiment, and Temporal Data,"** P. Agrawal, S. Laddha and N. Rakesh, *26 Jul 2025 SN Computer Science*, Springer Nature Link, Volume 6, Article 688, doi: 10.1007/s42979-025-04225-5.
- [3] **"Template Security in Biometrics System for Fingerprint Minutiae Templates Using Fuzzy Vault Method,"** S. Sapkal, S. Kabra and A. Ghule, *01 Oct 2025 Lecture Notes in Networks and Systems (LNNS)* Springer Nature Link, Volume 1405, pp 79-90, doi: 10.1007/s42979-025-04225-5.
- [4] **"Advancements in Explainable AI for Graph Neural Networks,"** P. Sonawane, S. Kabra and M. Jadhav, *2025 IEEE Xplore International Conference on Applications of Machine Intelligence and Data Analytics (ICAMIDA)*, Aurangabad, India, 2025, pp. 1-6, doi: 10.1109/ICAMIDA64673.2025.11209604.
- [5] **"Detecting plagiarism using Latent Semantic Analysis and Cosine Similarity Approach,"** V. Wagh, S. Laddha and P. Kadam, *2024 IEEE International Conference on Blockchain and Distributed Systems Security (ICBDS)*, Pune, India, 2024, pp. 1-6, doi: 10.1109/ICBDS61829.2024.10837475.
- [6] **"EduDocs: Document Verification using Blockchain,"** S. Kadwe, S. Laddha, Y. Patil, Y. Patle and A. Ghule, *2024 IEEE International Conference on Blockchain and Distributed Systems Security (ICBDS)*, Pune, India, 2024, pp. 1-5, doi: 10.1109/ICBDS61829.2024.10837395
- [7] **"Visual exploration of fault detection using machine learning and image processing,"** *InderScience: International Journal of Engineering Systems Modelling and Simulation (IJESMS)*; Vol. 14, No 1 (2022) DOI: 10.1504/IJESMS.2023.127394. ISSN: 1755-9758 pp 8-15
- [8] **"Necessity of Self-Explainability in AI: Insights from the existing Social Projects,"** In: Springer Book 'Next Generation Systems and Networks', by Hariom Bansal, Pawan Ajmera, 2023. 'Lecture Notes in Networks and Systems (LNNS, volume 641). Springer, Singapore. ISBN: 978-981-99-0482-2, ISSN: 2367-3389
- [9] **"Onto-Semantic Indian Tourism Information Retrieval System,"** In: Springer Book 'Recent Studies on Computational Intelligence', by Khanna Ashish, Singh Awadhesh Kumar, Swaroop Abhishek, DoSCI 2020. 'Studies in Computational Intelligence', Vol 921. Springer, Singapore. DOI: 10.1007/978-981-15-8469-5_1, ISBN: 978-981-15-8469-5, ISSN: 1860-9503 Pages 1-18 October 2020
- [10] **"Deep learning-based video coding optimisation of H.265,"** *InderScience: International Journal of Engineering Systems Modelling and Simulation (IJESMS)*; Vol. 14, No 1 (2022) DOI: 10.1504/IJESMS.2023.127392. ISSN: 1755-9758 pp 52-57

- [11] **"Novel Concept of Spelling Correction for Semantic Tourism Search Interface,"** In: Springer Book 'Information and Communication Technology for Sustainable Development', by Tuba Milan, Akashe Shyam, Joshi Amit (Eds.) ICT4SD June 2019. Advances in Intelligent Systems and Computing Vol 933. Springer, Singapore. DOI: 10.1007/978-981-13-7166-0_2, ISBN: 978-981-13-7166-0, ISSN: 2194-5357 Pages 13-21
- [12] **"Indian Tourism Information Retrieval System: An Onto-Semantic Approach,"** (2018) Elsevier Journal Open Access Procedia Computer Science (ISSN 1877-0509) volume 132, Pages 1363-1374 DOI: 10.1016/j.procs.2018.05.051, ScienceDirect
- [13] **"Portable Healthcare Computing and Clinical Decision Support System Enabled by Artificial Intelligence,"** InderScience: International Journal of Engineering Systems Modelling and Simulation (IJESMS); Vol. 13, Issue 3 (2022) DOI: 10.1504/IJESMS.2022.123955. ISSN: 1755-9758 pp 228-233
- [14] **"Onto Semantic Tourism Information Retrieval,"** Open Access International Journal of Engineering & Technology (UAE) (ISSN 2227-524X) Vol 7 No.(4.7) (2018) Pages 148-151 DOI: 10.14419/ijet.v7i4.7.20532.
- [15] **"New paradigm to keyword search: A survey,"** Green Computing and Internet of Things (ICGCIoT), 2015 PP. 920-923. IEEE Digital Explore, 2015 DOI: 10.1109/ICGCIoT.2015.7380594 ISBN: 978-1-4673-7910-6.
- [16] **"Semantic Search Engine,"** Indian Journal of Science and Technology Vol. 10, Issue 23 (2017) DOI: 10.17485/ijst/2017/v10i23/115568. Pp 1-6
- [17] **"Semantic Tourism Information Retrieval Interface,"** Advances in Computing, Communications and Informatics (ICACCI), 2017 IEEE Digital Explore DOI: 10.1109/ICACCI.2017.8125922, ISBN: 978-1-5090-6367-3. Pp 694-697
- [18] **"Consumer Loan Credit Risk Analyzer using Artificial Neural Networks,"** National Conference on Innovative paradigms in Engineering & Technology (NCIPET-2013) Journal IJCA (Online), Number 1 (ISBN: 973-93-80879-18-3), pp 6-10
- [19] **"An Exploratory study of keyword based search results,"** Indian Journal of Scientific Research 14(2), PP 39-45, ISSN: 2250-0138 (Online) 2017
- [20] **"Novel Concept of Query Similarity and Meta-Processor for Semantic Search,"** In: Springer Book 'Advances in Computer Communication and Computational Sciences' by Bhatia S.K., Tiwari S.T., (eds) 2019. Advances in Intelligent Systems and Computing. Vol 760. Springer, Singapore. DOI: 10.1007/978-981-13-0344-9_9, ISBN: 978-981-13-0344-9, ISSN: 2194-5357 Pages 111-120
- [21] **"Novel Concept of Query Prototype and Query Similarity for Semantic Search,"** In: Springer book 'Smart Trends Information Technology and Computer Communications', by Deshpande A.V., Unal A., Passi K. (eds). 2018. Communications in Computer and Information Science. Vol 876. Springer, Singapore. DOI: 10.1007/978-981-13-1423-0_35 ISBN: 978-981-13-1423-0 ISSN: 1865-0929 Pages 338-345
- [22] **"Book Related Information Retrieval using Ontology based semantic search & wordpress,"** International Journal of Emerging Technology and Advanced Engineering Website: www.ijetae.com (ISSN 2250-2459, ISO 9001:2008 Certified Journal, Volume 4, Issue 12, December 2014), pp 589-596

Honors/ Awards:

- **Aadarsh Shikshak Puraskar 2024** Lions Club Midtown, Chh. Sambhajinagar
- **Outstanding Women (Computer Science & Engineering) Award VIWA 2020** by the Centre for Advanced Research and Design, Venus International Foundation, Chennai
- **Best Faculty in Computer Science & Engineering** International Research Awards on Science, Health and Engineering 2020
- **International Excellence Best Research Thesis Award** at 1st Universal Innovators Leadership Awards (UILA 2020) by : SSsbs, University of Delhi, New Delhi in association with NIT Patna & University of Valladolid, Spain
- **Seventh Rank** Bachelors of Computer Science & Engineering, Amravati University, Maharashtra in 2000

Other Information:

- Life member of Indian Society for Technical Education
- Session Chair & Reviewer of Conferences: 50+
- Courses & Workshops Attended: 65+
- National and International Conferences Attended: 20+
- Courses and Workshops Organized: 25+
- Worked as visiting faculty to various colleges during June 2003 to September 2011
- Advisory Board Member of Yuva IncubateD & its related projects to empower educators & aspiring entrepreneurs
- Member of Local Governing Committee at Geetai Institute of Management, Bidkin Dist. Aurangabad affiliated to Dr. BAM University Aurangabad
- Expert Lectures at Geetai Institute of Management, Bidkin Dist. Aurangabad affiliated to Dr. BAM University Aurangabad
- Member of Syllabus Design Committees of Various Computer Science & Engineering Courses for Various Colleges
- Board of Studies Member of C. K. Thakur College Panvel, Navi Mumbai
- Member of NGO Chetana Empowerment Foundation
- Research Guidance: PhD students: 02 (Pursuing) & 100+ Students for Bachelor of Engineering Projects