Dr. Snehalata Bhikanrao Shirude

Assistant Professor

School of Computer Sciences, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon

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Education Qualification:

- M.Sc. (Computer Science), April 2000 **[Rank Second in the University]**
- Ph.D. (Computer Science), May 2016
- State Eligibility Test (MH-SET), May 2005

Teaching Experience:

20 Years

- Assistant Professor, School of Computer Sciences, KBCNMU, Jalgaon (22nd November 2007 to till date)
- Assistant Professor, PUCSD and Interdisciplinary School of Computing, S. P. University of Pune, Pune (12th December 2006 to 21st November 2007)
- Lecturer, School of Computer Sciences, KBCNMU, Jalgaon (1st June 2000 to 11th December 2006)

Areas of Research:

- **Intelligent Systems**
- **Web Mining and Machine Learning**
- **Information Retrieval and Pattern Recognition**
- **Data Science**

Awards / Appreciation Received:

- **CMI Level 5 Certificate in Management and Leadership, 2019**
- **Appreciation by Vice-Chancellor and Registra**r of KBCNM University for getting success as **Team Leader** at Swami Ramanand Tirth Marathwada Vidyapeeth, Nanded in 2017.

- **Award by Swami Vivekanand Sheshaknik Sevabhavi Sanstha, Dhule and Maharashtra Wani Yuva Manch at Rajyastariya Gungaurav Samarambha** for achieving success in academics at Nasik in August 2017.

- **IEEE Best Paper Research Award** at International Conference on Data Mining and Advanced Computing (SAPIENCE) on 16th – 18th March 2016.

- **IEEE Best Paper Research Award** at International Conference on Global Trends in Signal Processing, Information Computing and Communication (ICSPICC – 2016) on 22nd – 24th December 2016.

- **Award of Second Prize** for presenting research project under Teachers Category at **9th Maharashtra State Inter University Research Convention Avishkar 2014 at Nagpur** on 21st – 23rd January 2015.

- **Appreciation by Institute of Management and Research**, Jalgaon on 27th – 28th January 2015 for presenting doctoral research at **NCRTCSA-2015**.

- **IEEE Best Paper Award** at International Conference on Information Systems and Computer Networks, GLA University, Mathura Technically Sponsored by IEEE UP Section and Computer Society of India, Mathura Chapter (ISCON, 2014) on 1st – 2nd March 2014.

- **Best Synopsis Presentation Award** at ACM-W India Celebrations of Women in Computing, **AICWIC 2014**, at Goa University, Goa on 26th September 2014.

Publications:

- **Book Chapters [05]:**

1. Shirude S.B., Kolhe S.R. (2020) Improved Hybrid Approach of Filtering Using Classified Library Resources in Recommender System. In: Mandal J., Sinha D. (eds) Intelligent Computing Paradigm: Recent Trends. Studies in Computational Intelligence, vol 784. Springer, Singapore. https://doi.org/10.1007/978-981-13-7334-3_1

2. M. Patil, S. Shirude, G. Wani, M. Joshi (2020), Programming Ability and Confidence Enhancement (PACE): A Peer Tutoring Model. In Capacity Building in Higher Education Institutions, edited by Iwona Kuc, PP, 260-274 ISBN 978-83-8085-079-8, reviewed during the acceptance for ICBHE 2019 Conference.

3. Shirude S.B., Kolhe S.R. (2018) Agent-Based Architecture for Developing Recommender System in Libraries. In: Margret Anouncia S., Wiil U. (eds) Knowledge Computing and its

Applications. Springer, Singapore. https://doi.org/10.1007/978-981-10-8258-0_8

4. Shirude S. B., Kolhe S. R. (2018), "Classification of Library Resources in Recommender System Using Machine Learning Techniques", Published in Communications in Computer and Information Science, CCIS Series Editors: Barbosa, S.D.J., Filipe, J., Kotenko, I., Sivalingam, K.M., Washio, T., Yuan, J., Zhou, L. ISSN: 1865-0929 Volume 836 added in the title Social Transformation – Digital Way, Springer, Page Nos. 661- 673, Available online at https://www.springer.com/series/7899

5. Shirude S.B., Kolhe S.R. (2016) Machine Learning Using K-Nearest Neighbor for Library Resources Classification in Agent-Based Library Recommender System. In: Chakrabarti A., Sharma N., Balas V. (eds) Advances in Computing Applications. Springer, Singapore. https://doi.org/10.1007/978-981-10-2630-0_2

- **International Journals [07]:**

1. Shirude S. B., Kolhe S. R. (2020), "Improved Hybrid Approach of Filtering using Classified Library Resources in Recommender System", Intelligent Computing Paradigms: Recent Trends, Studies in Computational Intelligence Series, PP 1-10, Springer ISSN 1860-949X (Springer).

2. Shirude Snehalata B., Kolhe Satish R. (2019), "A Conceptual Framework of Expert Finding System for Academic Events and Committees", International Journal of Computer Sciences and Engineering, ISSN: 2347-2693. (UGC Listed).

3. Shirude Snehalata B., "Effectiveness of Use of Spoken Tutorial Implementing ICT based Learning for Computer Science Students", International Journal of Advanced Research in Science, Engineering and Technology (IJARSET), Volume 6, Issue 1, January 2019.

4. Shirude Snehalata B., "Conceptual Architecture of Automatic Medicinal Plants Identification System for Manudevi Region", International Journal of Advanced Research in Science, Engineering and Technology (IJARSET), Volume 6, Issue 1, January 2019.

5. Shirude S.B., Kolhe S.R. (2018), "Classification of Library Resources in Recommender System Using Machine Learning Techniques", In: Mandal J., Sinha D. (eds) Social Transformation – Digital Way. CSI 2018. Communications in Computer and Information Science, vol 836. Springer, Singapore. https://doi.org/10.1007/978-981-13-1343-1_54.

6. Shirude S. B., Kolhe S. R. (2014), "UseLibrary: A prototype of a recommender system for library". In International Journal of

Advances in Management, Technology and Engineering Sciences, Volume III, Issue 5 (I), pp. 34-39 February 2014, ISSN: 2249-7455.

7. S. B. Shirude, S. R. Kolhe (2012), "A library recommender system using cosine similarity measure and ontology beased measure", Advances in Computational research (ICV: 4.47), ISSN: 0975- 3273, E-ISSN: 0975-9085.

- **National Journals [01]:**

1. A.K. Sharma, S.B. Shirude, A.S. Patil, B. V. Pawar "JALNET (Jalgaon Library Network): An Online Library Information System", Library Herald, Volume 41, Issue 3, Pages 145-157, published by Delhi Library Association, 2003 Available Online at JALNET (Jalgaon Library Network): An Online Library Information System-Indian Journals

- **Proceedings of International Conferences [06]:**

1. Shirude Snehalata B., Kolhe Satish R., Classification of Library Resources in Recommender System using Machine Learning Techniques, 52nd Annual Convention of Computer Society of India (CSI-2017) held during January 19-21, 2018, at Science City Kolkata, Proceedings will be published by SPRINGER NATURE, Singapore.

2. S. B. Shirude and S. R. Kolhe, "Improving recommendations by assigning weights to semantic concepts," 2016 International Conference on Global Trends in Signal Processing, Information Computing and Communication (ICGTSPICC), 2016, pp. 143-147, doi: 10.1109/ICGTSPICC.2016.7955286. **(IEEE Best Paper Award).**

3. S. B. Shirude and S. R. Kolhe, "Classifying library resources in Library Recommender Agent using PU learning approach," 2016 International Conference on Data Mining and Advanced Computing (SAPIENCE), 2016, pp. 79-83, doi: 10.1109/SAPIENCE.2016.7684162. **(IEEE Best Paper Award).**

4. Snehalata B. Shirude and Satish R. Kolhe. 2014. Identifying subject area/s of user using n-Gram and Jaccard's similarity in profile agent of library recommender system. In *Proceedings of the 2014 International Conference on Information and Communication Technology for Competitive Strategies* (*ICTCS '14*). Association for Computing Machinery, New York, NY, USA, Article 23, 1–6. DOI:https://doi.org/10.1145/2677855.2677878.

5. S. B. Shirude and S. R. Kolhe, "Measuring similarity between user profile and library book," 2014 International Conference on Information Systems and Computer Networks (ISCON), 2014, pp. 50-54, doi: 10.1109/ICISCON.2014.6965217. **(IEEE Best Paper Award).**

6. Shirude S. B., Kolhe S. R., "Development of Recommender System using Intelligent Agent for efficient use of libraries", ACM-W India Celebrations of Women in Computing, AICWIC 2014, at Goa University, Goa on 26th September 2014.

- **Proceedings of National Conferences [04]:**

1. Snehalata Bhikanrao Shirude and Satish Ramesh Kolhe, "Classification of Library Resources in Recommender System using Machine Learning Techniques", National Conference on Advances in Computing (NCAC-2017) held at School of Computer Sciences, North Maharashtra University, Jalgaon, from March 24 to 25, 2017, pp. 75-82, ISBN: 978-81-910591-8-2.

2. Snehalata Bhikanrao Shirude and Satish Ramesh Kolhe, "Performing content-based filtering for discovering the book/s from digital library automated using Koha", National Conference on Advances in Computing (NCAC-2013) held at School of Computer Sciences, North Maharashtra University, Jalgaon, from March 05 to 06, 2013, ISBN 978-81-910591-7-5.

3. Snehalata Bhikanrao Shirude and Satish Ramesh Kolhe, "A Library Recommender System Using Cosine Similarity Measure and Ontology Based Measure", National Conference on Advances in Computing (NCAC-2012) held at Department of Computer Science, North Maharashtra University, Jalgaon, from March 16 to 17, 2012.

4. Snehalata Bhikanrao Shirude and Satish Ramesh Kolhe, "Filtering Journal Articles in Implementation of Recommender System based on Similarity Analysis of Semantic Concepts", National Conference on Advances in Computing (NCAC-2011) held at Department of Computer Science, North Maharashtra University, Jalgaon from February 24 to 25, 2011, ISBN 978-81-910591-2-0

- **National Conferences / Seminars Papers / Abstract Book / Posters / Synopsis Presented [10]:**

1. Snehalata B. Shirude, "Effectiveness of Use of Spoken Tutorial Implementing ICT based Learning for Computer Science Students" at National conference on ICT Based Use of Advanced Educational Technologies in Teaching-Learning and Evaluation, organized by Modern College of Arts, Science and Commerce, Shivajinagar, Pune, January 11-12, 2019.

2. Snehalata Bhikanrao Shirude, "Development of Recommender System using Intelligent Agent for efficient use of Library", State level Research Festival AVISHKAR-2014, Nagpur, January 21-23, 2015. [**Second Prize** in **Teachers category**]

3. Snehalata Bhikanrao Shirude, "Development of Recommender System using Intelligent Agent for efficient use of Library",

University level Research Festival AVISHKAR-2014, October 17-18, 2014, [**Second Prize**] [Selected for State Level Avishkar]

4. Snehalata Bhikanrao Shirude, "Measuring Similarity between Library Book and User Interests", University level Research Festival AVISHKAR-2013, October 18-19, 2013.

5. Snehalata Bhikanrao Shirude, "UseLibrary: A Recommender System for Digital Library", University level Research Festival AVISHKAR-2011, December 28-29, 2011.

6. Snehalata Bhikanrao Shirude, "A Recommender to get relevant paper/s from collection of scientific literatures implemented using semantic concept of similarity", University level Research Festival AVISHKAR-2010, December 23-24, 2010.

7. Snehalata Bhikanrao Shirude, "Developing an agent-based recommender system for helping students to search book/s from Library", University level Research Festival AVISHKAR-2009, December 1-2, 2009.

8. Snehalata Bhikanrao Shirude, "Towards the New Generation Recommender Systems using Machine Learning Techniques", University level Research Festival AVISHKAR-2008, December 17-18, 2008.

9. Snehalata Bhikanrao Shirude, "Development of Recommender System using Intelligent Agent for efficient use of Library", District level Research Festival AVISHKAR-2014, October 7, 2014.

10. Snehalata Bhikanrao Shirude, "Measuring Similarity between Library Book and User Interests", District level Research Festival AVISHKAR-2013, October 5, 2013.

- **Resource Person / Expert / Invited Talk:**

1. Worked as Resource Person for the subject **"Theoretical Computer Science and Compiler construction"** in NET SET Coaching Workshop conduced by Institute of Open and Distance Learning (IDOL), University of Mumbai, Kalina on 23rd November 2019.

2. Delivered **Invited Talk** on the topic **"Localization of Open-Source Software: A Case Marathi Interface for GIMP"** in the National Workshop on Computer Assisted Analysis of Human Expression: Challenges and Possibilities at Department of Computer Science, University of Mumbai on 30th – 31st March 2019.

3. Resource person for One Week Training Program organized for non-teaching staff of KBCNM University, Jalgaon on "Using Microsoft Office and Application of Internet" during November 2019 at KBCNM University, Jalgaon

4. Delivered **Invited Talk** on the topic **"Link Analysis and Recommender Systems"** in the National Level Seminar conducted by Department of Computer Science at University of Mumbai on 21st April 2018.

5. Worked as **Subject Expert** for In-house Avishkar 2018 Competition conducted by Department of Computer Science at IMR, Jalgaon on 11th September 2018.

6. Worked as **Subject Expert** for University Level event TECHZEON 2017 conducted by Department of Computer Science at IMR, Jalgaon on 15th September 2017.

7. Worked as **Subject Expert and Resource Person** for IT Festa 2016 Paper presentation Competition conducted by Department of Computer Science at IMR, Jalgaon on 25th January 2016.

8. Worked as **Subject Expert** for Research Level Festival Avishkar

   ▪ Avishkar 2019 at JDMVP's Nutan Maratha College, Jalgaon on 30th December 2019

   ▪ Avishkar 2018 at G. H. Raisoni College, Jalgaon

   ▪ Avishkar 2017 on 21st December 2017 at SPDM, Shirpur

   ▪ Avishkar 2016 at G. H. Raisoni College, Jalgaon

9. Worked as **Resource Person** for the subject **"Theoretical Computer Science and Compiler construction"** in NET SET Coaching conducted by Department of Computer Science at M.J. College Jalgaon on 22nd May 2012.

Research Project completed:	**1. Project Title: "Performing Profile Exploitation in the development of Recommender System "**

   ▪ **Principal Investigator: S. B. Shirude**

   ▪ **Funding Agency**: KBCNM University, Jalgaon

   ▪ **Period:** 1st April 2013 to 1st April 2015

   ▪ **Amount Sanctioned:** Rs. 70,000/-

2. Project Title: "GNU GIMP Software Marathikaran"

   ▪ **Principal Investigator: Prof. M. R. Joshi**

   ▪ **Co-Investigator: Dr. S. B. Shirude**

   ▪ **Funding Agency**: RMVS, Mumbai

   ▪ **Period:** 9th January 2018 to 9th January 2020

   ▪ **Amount Sanctioned:** Rs. 7,42,000/-

3. **Project Title: "Programming Ability and Confidence Enhancement" (PACE)**

- ▪ **Principal Investigator: Prof. M. R. Joshi**
- ▪ **Co-Investigator: Dr. S. B. Shirude, Dr. M. P. Patil**
- ▪ **Funding Agency**: KBCNM University, Jalgaon
- ▪ **Period:** 2019-2021
- ▪ **Amount Sanctioned:** Rs. 2,00,000/-

Active Participation:

- **Development / Training Programme:**
  - One Week Faculty Development Programme on Python organised by M.C.E. Society's Abeda Inamdar Senior College of Arts, Science and Commerce, Pune in Association with Spoken Tutorial, IIT Bombay during 1st May 2020 to 8th May 2020.

  - Short Term Faculty Development Programme on Epoch Making Indian Thinkers and Their Thoughts for Social Reconstruction conducted at School of Thoughts, K B C North Maharashtra University, Jalgaon from 16/09/2019 to 22/09/2019 organized by UGC Human Resource Development Centre, Savitribai Phule Pune University Pune

  - One day workshop "Use of ICT for Effective Teaching" organized by School of Computer Sciences under the aegis of Internal Quality Assurance Cell (IQAC), K B C North Maharashtra University, Jalgaon on 30th November 2019.

  - AICTE-UKIERI Leadership Development Programme
    - o 1st Workshop: 13th – 16th November 2018 at AICTE Delhi
    - o 2nd Workshop: 20th February – 24th February 2019 at Bengaluru
    - o 3rd Workshop: 13th June – 16th June 2019 at Shillong

  - Short Term Faculty Development Programme on Research Methodology conducted at School of Thoughts, K B C North Maharashtra University, Jalgaon from 17th December 2018 to 23rd December 2018 under UGC-HRDC, S P Pune University, Pune.

  - Training under CABCIN Consortia Project and ERASMUS+ at KBCNM University Jalgaon
    - o Module-1 Diversity Management in the workplace in the context of HEI on 19th – 20th July 2018.

- Module-2 Assessment and Grading on 29th – 30th August 2018.

- Module-3 Personal Development and Intellectual Honesty on 17th – 18th September 2018.

- Module-4 Leadership: Creating direction, setting goals, and defining tasks on 8th – 9th October 2018.

- Faculty Development Program on "Industry Level C and C++ Programming" organized jointly by KBCNMU, Jalgaon and Quick Heal Foundation under the Quick Heal Faculty Connect program on 12th 13th July 2018.

- ISTE Workshop on Writing Effective Conference Papers under the MHRD, Govt. of India on 18th – 19th February 2012 conducted by IIT Bombay at regional centre Jalgaon.

- National Level Workshop on Koha: An Integrated Library Automation Software organized by Dhanjayarao Gadgil Library, Gokhale Institute of Politics and Economics (GIPE), Pune (India), from 30 June – 01 July 2012.

- Training Workshop on "FEEL Teachers" conducted by College for Leadership and Human Resource Development, Mangalore, organized by North Maharashtra University, Jalgaon from 01/12/2008 to 03/12/2008.

- TECS Week 2007 on Data Intensive Computing at Tata Research Design and Development Centre, Pune, India from 3-7 January 2007.

- **Orientation Programme / Refresher Course:**	- 44th Refresher Course on Application of ICT in Sciences at Sardar Patel University, Vallabh Vidya Nagar, Anand, Gujrat from 11th June 2018 to 1st July 2018.
	- ET702x: Designing Learner-Centric MOOC (Online Course) conducted by Indian Institute of Technology, Bombay from 2nd August 2018 to 6th September 2018.
	- Refresher Course in Computer Application at University of Pune during 11th November 2013 to 1st December 2013.
	- 95th Orientation Programme at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad from 1st December 2012 to 29th December 2012.
Membership:	- Member of **"International Association of Engineers",** non-profit international association for the engineers and computer scientists **(Membership Number: 235128)**

Academic / Extension / Administrative Activities:

- **Organizing Secretary / Convener / Coordinator**

- Worked as Co-ordinator for Online Webinars:
    - ♦ Topic **"Entrepreneurship and Micro Business Start-up"** on 1st August 2020 delivered by our School's former student Mr. Nilesh Patil from United States of America.
    - ♦ Topic **"Industry Revolution 4.0"** on **14th September 2020,** The esteemed speakers for the seminar were Mr. Saad Naseem, Regional Representative, International Office, South Asia, Asia Pacific University of Technology and Innovation - APU Malaysia And Mr. Thomas Tanama, Regional Representative, International Office, Middle East, Asia Pacific University of Technology, and Innovation - APU Malaysia.
    - ♦ Topic **"A Case Study: Quality Assurance"** on **1st October 2020.** The invited speaker for this webinar was Mr. Gopal Patil, Specialist Quality Control.
- Worked as Organizing Committee Member for Train-the Teachers Training Program (TTT Program) organised under e-UttamVidya@KBCNMU Flagship Project by KBCNMU. Jalgaon during 20/07/2020 to 31/07/2020.
- Worked as BOS Committee Member for Computer Science, Computer Application and Software Development (Vocational Degree) on 7th December 2020 at Sangamner Nagarpalika Arts, D.J.Malpani Commerce & B.N. Sarda Science College, Sangamner, Dist. Ahmednagar,(M.S.), India.
- Worked as Co-ordinator for Certificate Course "Image Manipulation using Open Source and Localized Software" conducted by School of Computer Sciences, KBCNM University, Jalgaon during 28th January 2019 to 2nd February 2019.
- Worked as Organizing Secretary for Workshop on "Wikipedia Vector Graphics Localization" organized by KBCNM University, Jalgaon in association with The Centre for Internet & Society under the SVG Translation Campaign 2019 on 15th March 2019.
- Worked as co-coordinator of two days' workshop of PG students on "Open-Source Software and GitHub" under PACE [Programming Ability and Confidence Enhancement] under Change Project: UKIERI Leadership and Management Programme "on 11th October 2019 to 12th October 2019.
- Worked as Coordinator for one day Workshop on "Cyber Security" under Digital Shakti Campaign, National Commission

of Women, New Delhi at KBCNM University, Jalgaon in October 2018.

- Worked as Organizing Secretary for NCAC 2017 conducted by School of Computer Sciences, KBCNM University, Jalgaon during 24th – 25th March 2017.

- Worked as Coordinator for Manthan – 2016.

- **Participation in curricular development:**
  - Participation in Curriculum Designing of M.Sc. (CS), M.Sc. (IT) and MCA courses of the School.

  - Counsellor for IGNOU Centre at NMU Jalgaon (Completed examination related tasks, evaluation of home projects, assignment, guidance to industrial projects.

  - Worked as examiner and Junior Supervisor for M.Sc. (CS), M.Sc. (IT) and MCA Examination.

  - Worked as Member of Several Committees of School such as Academic Committee, Admission Committee, Examination Committee.

- **Participation in co-curricular and extra-curricular activities**
  - Worked as Female Team Leader for Avishkar-2016 at Swami Ramanand Tirth Marathwada University, Nanded.

  - Worked as Female Team Leader for Anveshan-2019, West Zone Inter-University Student Research Convention at University of Mumbai, Mumbai.

  - Worked as NAAC Committee Member for Criteria VI – Governance, Leadership and Management along with Prof. Joshi and Prof. Bendre in 2020.

  - Worked as Member Local Inspection Committee for Nutanikaran / Natural Growth for Colleges and Institutes affiliated to KBCNM University, Jalgaon

  - Worked as Member for Science Day Celebration Programme Manthan (Yearly Activity).

  - Worked as Committee Member for "Vidyarthi Dattak Yojna" on 5th May 2017.

  - Worked as Committee Member for Avishkar 2016, Avishkar 2017, Avishkar 2018, Avishkar 2019, (District Level & University Level).

  - Worked as School Representative for Avishkar 2016.

  - Worked as Committee Member for NCAC-2019, NCAC-2018, NCAC-2017, NCAC-2013, NCAC-2012, NCAC-2011, Yuvarang-2018, Yuvarang-2017, NWNLPIP-2016, NWAC-2015.

  - Worked as Examination Committee Member for Flying Squd of University.

- Worked as Invigilator for Online PET Examination on 23rd September 2017.
- Active Participation in "Clean Campus Mission" of the University.

July 2021   **Snehalata B. Shirude**