

## Curriculum Vitae



### **Dr. Sonali Bhagwanrao Kulkarni**

[M.Sc., Ph. D., SET in Computer Science]

<b>PERSONAL DETAILS</b>	
Name	: Sonali Bhagwanrao Kulkarni.
Designation	: Associate Professor of Computer Science
Mailing Address	: Department of Computer Science & Information Technology, Dr.Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar (M.S), India -431004 ☎ (0240) 2403316 0240-2403317(Fax) ☎ . +91 -9850934727 @ <a href="mailto:sonalibkul@gmail.com">sonalibkul@gmail.com</a> <a href="mailto:sbk.csit@bamu.ac.in">sbk.csit@bamu.ac.in</a>
Total Experience	: <b>22 Years</b>

<b>AREA OF SPECILIZATION</b>
<ul style="list-style-type: none"><li>• Natural Language processing, Machine Learning, Remote Sensing and Geographic Information System, Brain Computer Interface, Computational Linguistic.</li></ul>
<b>SUBJECT TAUGHT</b>
<ul style="list-style-type: none"><li>• Advance Software Engineering</li><li>• Research Methodology</li><li>• Research Project Review Writing</li></ul>

**EDUCATIONAL QUALIFICATION (Graduation onwards)**

- **B.Sc. (Physics, Chemistry and Computer Science)** from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, in 2000, with First Division.
- **M.Sc. (Computer Science)** from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, in 2002, with **First in the order of Merit at the University level**.
- **Ph. D. in Computer Science** from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, in 2014.
- **Qualified SET (Computer Science and Applications)** from University of Pune, Pune in 2003.

- Advanced Operating System
- Modern Operating System
- Remote Sensing and GIS
- Advance Computer Network
- Natural Language Processing
- Data Visualization Using R and Python
- Advance Software Engineering
- Data Visualization

**Research /Dissertation Supervision**

	<b>Name of the student</b>	<b>Status of work</b>
Ph.D	Mr.Vipin Y.Borole	Awarded
	Ms.Vaishali C .Ranbhore	Working
	Ms.Apurva D.Dhawale	

	Mr.Talal Aldhaheri	Working
	Miss.Pratibha R.Bhise	Working
	Mr. Gaju Chavan	Working
	Ms. Simran Maniyar	Working
M.Phil	1.Kute Seema S.	Awarded
	2.Miss.Bhise Pratibha .R	Awarded
	3. Patwardhan Sayli	Working
	4.Mr. Tatu Amolsing	
	5. Shaikh Aqsa Javed	
	6. Shaikh Imran	-
	7.Maniyar Simran	Awarded
M.Tech	Mariya Ali	Awarded

PG	PG level students of M.Sc Computer Science & M.Sc Information Technology and M.Sc Artificial Intelligence For Final Semester
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<b>Research Project Completed/Ongoing (Minor Research Project)</b>	
<ul style="list-style-type: none"> <li>• Study of Brain Signal Patterns of Students using Brain Computer Interface.(2022-23)(<b>Ongoing</b>)</li> <li>• Effects of Mindfulness Meditation on Brain Rhythms Using Brain Computer Interface.(2018-19) (<b>Completed</b>)</li> <li>• Design and Development of Bilingual Sanskrit to Marathi Audio-Visual, Textural Dictionary.(2018-19) (<b>Completed</b>)</li> </ul>	

<b>RECOGNITION BY AN ACADEMIC BODY</b>		
Sr.No	Life Member & Fellow	Name of the body /Organization
01	IETE	Institute of Electronics and Telecommunication Engineers.
02	ISCA	Indian science congress
03	GIAN	Global Initiatives of Academic Network.
04	IAENG	International Association of Engineers

<b>PATENT</b>		
Sr.No	Application No.	Title
01	202321058763	Privacy Protected Anomaly Detection For Smart Agriculture Using Internet of Things and Machine Learning

<b>REFRESHER/ ORIENTATION COURSE</b>	
<ul style="list-style-type: none"> <li>• NEP 2020 Orientation &amp; Sensitization Programme under Malaviya Mission Teacher Training Programme(MM-TTP) of UGC Organized by UGC- Malaviya Mission Teacher Training Centre , Dr. Babasaheb Ambedkar Marathwada University, Chhatrapati Sambhajinagar , during 05<sup>th</sup> February 2024 to 14<sup>th</sup> February 2024</li> </ul>	

- Attended National Level Faculty Development Program on "INNOVATION, RESEARCH AND IPR - JOURNEY TOWARDS EXCELLENCE", organized by BVB's Sardar Patel College of Engineering, Mumbai & HSM's Shri. Sant Gadge Baba College of Engineering & Technology, during 1<sup>st</sup> March 2023 – 5<sup>th</sup> March 2023
- Attended One Week International eFDP on “ Recent Trends and Applications in Artificial Intelligence “, Organized by Symbiosis Institute of Computer Studies and Research (SICSR),a constituent of Symbiosis International (Deemed University), Pune, India, during 12<sup>th</sup> December 2022 to 17<sup>th</sup> December 2022.
- Attended Short Term Training Program on “Data Science and its Real Life Applications”, Organized by Electronics and Computer Engineering Department ,P.E.S College of Engineering ,Aurangabad, Maharashtra, during 8<sup>th</sup> April to 13<sup>th</sup> April 2022.
- Attended Faculty Development Program on(online)”Current Research Trends in Computer Engineering”, Organized by the Department of Computer Engineering in association with Research cell ,DIT, held during 28<sup>th</sup> March 2022 to 1<sup>st</sup> April 2022.
- Attended NRDMS-DST SUMMER SCHOOL ON GEOSPATIAL TECHNOLOGIES (LEVEL1) Organized By Department Of Computer Science And IT, Dr.BAMU, Aurangabad. During 10 June 2019 to 30 June 2019
- Attended Faculty development program on “Machine Learning, Deep Learning and Applications”, Organized by S.B.E.S College of Science, Aurangabad. During 08 to 12 April 2019.
- Attended Basic course on “Remote Sensing , Geographic Information System & Global Navigation Satellite System”, Organized by Indian Institute of Remote Sensing ,Sponsored by national natural resources management system, During August 10 to November 27,2015
- Attended Refresher course in E-Governance and E-Learning at HRDC, Dr.Babasaheb Ambedkar Marathwada University, Aurangabad. During 15/11/2015 to 08/12/2015.
- Attended a Orientation course held at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. During 03/03/2009 to 30/03/2009

#### **NUMBER OF PUBLICATIONS**

- Attended a Refresher course held at Academic Staff College, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. During 05/12/2005 to 27/12/2005.

- Simran N.Maniyar, Sonali B.Kulkarni ,” A Comprehensive review of Recent Development in Aspect Based Sentiment Analysis “,High Technology Letters ,ISSN:1006-6748,Vol-29,Issue 09, September 2023. **(ELSEVIER Scopus)**
- Apurva D. Dhawale, Sonali B. Kulkarni, Vaishali M. Kumbhakarna ,” Comparing the Analytical Algorithms for unsupervised e-News Summarization Using Machine Learning Tactics”, International Conference on Applications of Machine Intelligence and Data Analytics 2022,22 to 24 dec ICAMIDA 2022.**(SPRINGER Scopus)**
- Pratibha R.Bhise ,Sonali B.Kulkarni ,Talal A.Aldhaheri,” “Statistical Analysis of Cognitive Attention in Students during Learning using Neurosky Mindwave II”, 6<sup>th</sup> International Conference on “Artificial Intelligence an Soft Computing ,Organized by ,26 -27 Nov 2022**(Scopus-Greeneze ELSEVIER)**
- Simran N.Maniyar, Sonali B.Kulkarni,” “English to Marathi Machine Translation Linguistic Divergence Using ANN”, 5<sup>th</sup> International conference on Advances in science and technology Orgnaized by K. J. Somaiya Institute of Engineering & Information Technology,2 and 3 dec 2022.**(IEEE Scopus)**
- Vaishali M.Kumbhakarna, Sonali B.Kulkarni , Apurva D.Dhawale,” Zenith NLTK Methods Manifest To Textual Data Cleaning And Pre-Processing Destined For Obstetrics And Gynec Free-Text Radiology Reports”, International Journal of Application,or Innovation in Engineering,& Management,ISSN:2319-4847,Vol:11,October 2022 scopus
- Simran N.Maniyar, Sonali B.Kulkarni, Pratibha R.Bhise,”Comparative Analysis of Chlorophyl Contents in Herbal Plants using Regression Model”,IJCRT ,ISSN:2320-2882,Vol.10,Date :05 May 2022.
- Vipin Y. Borole, Sonali B. Kulkarni,” Vipin Y. Borole, Sonali B. Kulkarni, "Soil Spectral analysis for influence offertilizers on agricultural soil in different season using Spectroradiometer for Jalgaon District",High Technology Letters,ISSN

no.1006-6748,Volume 28,Issue.3,March 2022(**ELSEVIER Scopus**)

- Vipin Y. Borole, Sonali B. Kulkarni, “Soil Properties Classification Using Support Vector Machine For Raver Tehsil”, International Journal of Advanced Trends in Computer Science and Engineering, 10(6), **November – December 2021**, Pg.3154 – 3159
- Renuka Vaidya , Sonali Kulkarni,Vaibhav Didore,”Intelligent Transportation System Using IOT:A Review”,International Journal For Research Trends and Innovations ,ISSN no.2456-3315,Volume.6,Issue 9, September 2021
- Vipin Y. Borole, Sonali B. Kulkarni, “Statistical Analysis of Soil properties using Non-Imaging Spectral data for quantitative analysis of Raver Tehsil”2nd International Conference on Computer Vision, High Performance Computing, Smart Devices and Networks(CHSN-2021),20-21 August 2021.(**SPRINGER Scopus**)
- Pratibha R.Bhise ,Sonali B.Kulkarni ,Talal A.Aldhaheri,” Methods and Processing Tools for Cognitive States Estimation: A Systematic Review", International Research Journal of Engineering and Technology (IRJET),ISSN,2395-0056,,Vol 8 ,Issue 8,August 2021.
- Vipin Y. Borole and Sonali B. Kulkarni, “Correlation of pH on Soil Physicochemical Properties using Linear Regression Model for Spectral Data Analysis”, International Journal of Advanced Remote Sensing and GIS, Volume 10, Issue 1, 17 **July-21**, pp. 3492-3500
- Vipin Y.Borole, Sonali B.Kulkarni ,”Prediction of Soil Physicochemical Properties by Visible and Near-Infrared Diffuse Reflectance Spectroscopy Using Partial Least Square Regression “,International Journal of Creative Research Thoughts ,ISSN 2320-2882,Vol 9 ,Issue 6 ,June 2021
- Simran N.Maniyar, Sonali B.Kulkarni, Pratibha R.Bhise ,” Pre-processing of Linguistic Divergence in English Marathi Language Pair in Machine Translation “,4 th International Conference on Soft Computing and Signal Processing organized by Malla Reddy College of Engineering & Technology, Hyderabad.(Chapter : Advances in Intelligent Systems and Computing (AISC)Series .(**SPRINGER Scopus**)
- Mariya A. Ali, Sonali B. Kulkarni ,”Emotion Detection and Sentiment Analysis for Hindi Movie Reviews”, International Journal of Emerging Trends & Technology in

Computer Science , ISSN 2278-6856, Vol. 10, Issue 1, pp. 032-038 ,January - February 2021 .

- Vipin Y. Borole, Sonali B. Kulkarni , " Automated brain tumor detection application development using digital image processing" , International Journal of Emerging Trends & Technology in Computer Science (IJETTCS) , Volume 10, Issue 1, **January - February 2021** , pp. 014-019
- Vipin Y. Borole, Sonali B. Kulkarni , "Comparative analysis of soil properties for influence of fertilizers using Remote Sensing Techniques", International Journal of Computer Applications, ISSN 0975 – 8887 , Vol 174 ,February 2021
- Talal A. Aldhaheri , Sonali B. Kulkarni, Pratibha R. Bhise, "Methods of Electroencephalography in Neurolinguistics: A Systematic Review ", Twelfth International Conference on Recent Trends in Information, Telecommunication and Computing – ITC 2021, Grenze International Journal of Engineering and Technology (GIJET)(**ELSEVIER Scopus**)
- Vaishali M. Kumbhakarna , Sonali B. Kulkarni , Apurva D. Dhawale, " AI based NLP Assistant for Automatic Detection of Coronavirus Disease (COVID-19) Using chest CT and X-ray Radiology Reports :A Technical Survey", International Refereed Journal of Engineering and Science, ISSN:2319-1821, Vol.10 ,Issue 1, pp.11-16, January 2021.
- Vipin Y. Borole, Sonali B. Kulkarni, "Spectral data analysis methods for soil properties assessment using Remote Sensing", IOSR Journal of Computer Engineering, ISSN:2278-0661, Vol.23, Issue 1, pp 14-18, Jan-Feb 2021
- Simran N. Maniyar, Sonali B. Kulkarni, Pratibha R. Bhise, "Linguistic divergence in various language pair in Machine Translation Perceptive ", IOSR Journal of Computer Engineering, ISSN:2278-0661, Vol.23, Issue 1, pp 15-26, Jan-Feb 2021
- Talal A. Aldhaheri , Sonali B. Kulkarni, Pratibha R. Bhise, "Brain Signal Analysis :Methods and Techniques Used in Nanotechnology", IOSR Journal of Computer Engineering, ISSN:2278-0661, Vol.23, Issue 1, pp 01-06, Jan-Feb 2021.
- Pratibha R. Bhise , Sonali B. Kulkarni , Talal A. Aldhaheri, " Survey on Assessment of Cognitive States during Learning Activities using Brain Computer Interface based



EEG”, International Journal of Computer Applications,ISSN:0975-8887,Vol.174 ,Issue 15 ,pp 08-12,January 2021.

- Pratibha R.Bhise ,Sonali B.Kulkarni ,Talal A.Aldhaheeri,” Multidisciplinary Review on Brain Computer Interface Based EEG for Assessment of Emotion Recognition System and Cognitive States during Learning Activities”, IOSR Journal of Engineering ,ISSN:2250-3021,Vol.10,Issue 12 ,pp 34-46,Decemer 2020.
- Apurva D.Dhawale, Sonali B.Kulkarni,Vaishali Kumbhakarna ,”Automatic Unsupervised Extractive Summarization of Marathi Text Using Natural Language Processing”,IOSR Journal of Computer Engineering ,ISSN:2278-0661,Vol.22 ,Issue 6,pp 21-25,Nov-Dec 2020.
- Mariya A. Ali ,Dr. Sonali B.Kulkarni ,”Preprocessing of Text for Emotion Detection and Sentiment Analysis of Hindi Movie Reviews”,International conference on IoT Based Control Networks and Intelligent Systems, organized by St.Joseph’s college of engineering and Technology ,Kottayam ,India. ,10-11 december 2020(**ELSEVIER Scopus**)
- Vaishali M.Kumbhakarna , Sonali B.Kulkarni , Apurva D.Dhawale,” NLP algorithms endowed for Automatic etraction of information from unstructured free-text reports of radiology monarchy”, International Journal of Innovative Technology and Exploring Engineering ,”Vol.9,Issue 12,October 2020.(**ELSEVIER Scopus**)
- Apurva D.Dhawale, Sonali B.Kulkarni,Vaishali Kumbhakarna ,”Automatic Preprocessing of Marathi Text for Summarization “,International Journal of Engineering and Advanced Technology (IJEAT), Volume-10 Issue-1, ISSN: 2249-8958, October 2020.(**ELSEVIER Scopus**)
- Simran N.Maniyar, Sonali B.Kulkarni, Pratibha R.Bhise ,”Systematic Review on Techniques of Machine Translation for Indian Languages”, International Journal of Emerging Trends & Technology in Computer Science, Volume 9,Issue 5,ISSN”2278-6856,September -October 2020
- Apurva D. Dhawale, Sonali B. Kulkarni, Vaishali M. Kumbhakarn,” A Machine Learning Approach for Automatic Unsupervised Extractive Summarization of Marathi

Text”, International Journal of Creative Research Thoughts (IJCRT), Volume 8, Issue 11, ISSN: 2320-2882, November 2020

- Apurva D.Dhawale, Sonali B.Kulkarni, Vaishali Kumbhakarna, ” Survey Of Progressive Era Of Text Summarization For Indian And Foreign Languages Using Natural Language Processing”, International conference on innovative data communication Technologies & applications (ICIDCA) COIMATORE, TAMILNADU, October 17-18 ,2019(**SCOPUS-SPRINGER**)
- Talal A.Aldhaheeri , Sonali B.Kulkarni, Pratibha R.Bhise ,”Brain Computer Interfaces and Neuro-Linguistics:A Short Review”, 2<sup>nd</sup> International Conference on Sustainable communication networks and application, organized by Surya Engineering College ,Erode,India,6-7 August 2020(**SPRINGER Scopus**).
- Vipin Y.Borole ,Sonali B.Kulkarni ,Pratibha R.Bhise ,” Soil Properties Assessment in Surface and Subsurface using Spectroradiometer for Raver Tehsil of Jalgaon District “,Journal of Critical Review , Vol.7 ,Issue 18 , ISSN:2394-5125 ,August 2020.
- Pratibha R.Bhise,Sonali B.Kulkarni,Talal A.Aldhaheeri, ”Brain Computer Interface Based EEG for Emotion Recognition System:A Systematic Review”,Second International Conference on Innovative Mechanisms for Industry Applications (ICIMIA-2020), 5<sup>th</sup> to 7<sup>th</sup> March 2020.(**IEEE Scopus**)
- Vaishali M.Kumbhakarna, Sonali B.Kulkarni , Apurva D.Dhawale ,”Clinical Text Engineering using Natural Language Processing Tools in Healthcare Domain :A Systematic Review”,International Conference on Innovative Computing and Communication,28 March 2020 (**ELSEVIER Scopus**)
- Vaishali M.Kumbhakarna , Sonali B.Kulkarni , Apurva D.Dhawale, ”Women security and empowerment through computer science and information technology in 21<sup>st</sup> century :India and abroad”, Interdisciplinary conference ,MGM University.
- Apurva D.Dhawale, Sonali B.Kulkarni, Vaishali Kumbhakarna ,”A Survey of Distinctive Prominence of Automatic Text Summarization Techniques Using Natural Language Processing”, International Conference on Mobile Computing and Sustainable Informatics(ICMCSI 2020), Pulchowk Campus ,Institute of Engineering, Tribhuvan University, Nepal , January 23-24, 2020(**SCOPUS-SPRINGER**)

- Vipin Y. Borole, Sonali B. Kulkarni, Pratibha R. Bhise, "Effect of Fertilizers on Soil Properties for different Crops in Pre-monsoon Season using Spectroradiometer for Raver tehsil of Jalgaon District", International Journal of Scientific and Technology Research(IJSTR), Vol-9, Issue-01, ISSN:2277-8616, 15 January 2020(**SCOPUS-ELSEVIER**).
- Simran N. Maniyar, Sonali B. Kulkarni, Pratibha R. Bhise, "Analysis of Chlorophyll Contents in Herbal Plants from Dr. Babasaheb Ambedkar Marathwada University, Aurangabad Campus using FieldSpec 4 Spectroradiometer", International Journal for Research in Applied Science & Engineering Technology, "Vol.07, Issue :XI ,ISSN:2321-9653, November 2019(**Thomson Reuters**)
- Apurva D. Dhawale, Sonali B. Kulkarni, Vaishali Kumbhakarna, "Survey Of Progressive Era Of Text Summarization For Indian And Foreign Languages Using Natural Language Processing", International conference on innovative data communication Technologies & applications (ICIDCA) COIMATORE, TAMILNADU, October 17-18 ,2019(**SCOPUS-SPRINGER**)
- Vipin Y. Borole, Sonali B. Kulkarni, Pratibha R. Bhise, "Soil Spectral Signature Analysis for Influence of Fertilizers on Two Different Crops in Raver Tahshil ," International journal of Recent Technology and Engineering", Vol 8 ,Issue -3 ISSN - 2347-2693, September 2019 (**SCOPUS-EISEVIER**)
- Pratibha R. Bhise, Sonali B. Kulkarni, Vipin Y. Borole, "Preprocessing and Statistical Analysis of Soil Parameters using Conventional Laboratory Techniques and Nonimaging Spectral Techniques for Vaijapur Taluka.", International Journal of Recent Technology and Engineering", Vol 8 ,Issue -2 ISSN -2347-2693, July 2019(**SCOPUS-ELSEVIER**)
- Pratibha R. Bhise, Sonali B. Kulkarni, Vipin Y. Borole, "Acquisition of Soil Spectral Signatures and Creation of Database for Vaijapur Taluka Using Spectroradiometer 4", Second international conference on advances in science and technology, K J Somaiya Institute of Engineering & Information Technology, Mumbai, India 2019 (**SCOPUS-ELSEVIER**)

- Seema S. Kute, Sonali B. Kulkarni," Data Analysis and Data Classification Techniques for Meditative and Non-Meditative Brain Rhythms using EEG Signals", International Journal of Electrical Electronics & Computer Science Engineering(IJEECSE),Vol 6 ,Issue-2,ISSN-2348-2273,April 2019
- Mariya A. Ali ,Dr. Sonali B.Kulkarni," Emotion Detection and Sentiment Analysis in Regional Languages-A Review", Journal of Emerging Technologies and Innovative Research,"Vol 6 Issue 3,ISSN- 2349-5162,March 2019
- Vipin Y.Borole, Sonali B.Kulkarni," Soil spectral analysis for influence of fertilizers on soil quality using Spectroradiometer: A Review", International Conference On Electrical, Communication, Electronics, Instrumentation And Computing (ICECEIC - 2019).(SCOPUS-IEEE)
- Pratibha R. Bhise, Sonali B.Kulkarni," Estimation of Soil Macronutrients From Spectral Signatures Using Hyperspectral Non-Imaging Data", International Conference On Electrical, Communication, Electronics, Instrumentation And Computing (ICECEIC - 2019).(SCOPUS-IEEE)
- P.R. Bhise, S.B. Kulkarni," Evaluation of Soil Physical/Chemical Parameters for Agriculture Production in Vaijapur Taluka Using VNIR-SWIR Reflectance Spectroscopy", International Journal of Computer Sciences and Engineering, Vol.-6, Issue-12, Dec 2018
- Aqsa Shaikh , S. B. Kulkarni ," Machine Translation for Indian Languages a Review", International Journal of Emerging Technologies and Innovative Research, ISSN:2349-5162, Vol.5, Issue 12, page no.464-479, December-2018,
- Pratibha R.Bhise, Sonali B.Kulkarni", Review on Analysis and Classification Techniques of Soil Study in Remote Sensing and Geographic Information System" International Journal of Emerging Trends & Technology in Computer Science, Vol 6, Issue 1, ISSN 2278-6856, January- February 2017
- Pratibha R. Bhise, Sonali B. Kulkarni," Remote Sensing and Data Mining Techniques Applied on Soil Characteristics Data Classification", International Conference on

Recent Advances in Computer Science, Engineering and Technology (ICRACSET-2017)

- Seema Kute, Dr. Sonali Kulkarni, “Review on Effect of Mindfulness Meditation on Brain through EEG Signals”, International Journal of Engineering Research and General Science, Vol 4, Issue 4 , ISSN 2091- 2730, 2016.
- Seema Kute, Dr. Sonali Kulkarni,” Mindfulness Meditation and Brain Signals: A Review”, International Journals of Recent and Innovative Trends in Computing & Communication, Vol. 5, Issue 5, ISSN 2321-8169, PP: 976 – 980, May 2017
- Seema Kute, Dr. Sonali Kulkarni,” Classification of Brain Signals in Mindfulness Meditation”, International Journal of Advanced Research in Computer Science, Vol. 8, Issue 5, May-June 2017, ISSN 0976-5697.
- Seema Kute, Dr. Sonali Kulkarni,” Analysis of Mindfulness Meditation Effect on Brain through Electroencephalography”, International Journal of Electronics Engineering Research, ISSN 0975-6450, June 2017
- Pratibha R.Bhise , Bharti W.Gawali , Sonali B.Kulkarni,” Analysis of Problem Solving and Gaming Activity of Students Using Emotive EPOC”, IJESC ,Vol.6, August 2016
- Seema Kute, Dr. Sonali Kulkarni,“ Data acquisition through EEG for meditative states in BCI using non-invasive Emotive EpocNeuroheadset ”, International Conference on Global Trends in Engineering, Technology and Management, Jan 2015.
- Sandeep V. Gaikwad, Karbhari V. Kale, Sonali B. Kulkarni, Amarsinh B. Varpe and Ganesh N. Pathare,” Agricultural Drought Severity Assessment using Remotely Sensed Data: A Review ”, International Journal of Advanced Remote Sensing and GIS, 2015, Volume 4, Issue 1, pp. 1195-1203, ISSN 2320 – 0243
- S. B. Kulkarni, Pradnya D. Deshmukh, Karbhari V. Kale, “Syntactic and Structural Divergence in English-to- Marathi Machine Translation” is published in proceedings of IEEE Sponsored International Symposium on Computational and Business Intelligence”. August 2013, New Delhi.

- S. B. Kulkarni, P. D. Deshmukh, M. M. Kazi, K. V. Kale,” Linguistic to socio-and-psycho linguistic aspects in English-to-Marathi language translation”, International Journal of Research in Computer Applications and Robotics, vol.1 issue.9, pg.: 197-205 December 2013
- S. B. Kulkarni, P. D. Deshmukh, M. M. Kazi, K.V.Kale “Linguistic Divergence Patterns in English to Marathi Translation”, International Journal of Computer Application,volum87,Number 4,Feb 2014, ISBN : 973-93-80880-14-0 2013.
- S. B. Kulkarni “New Trends and Technologies in Education Field “is published in the book entitled “Shodhayatra”, Volume-3 on page no. 3/170 to 3/175, ISBN 81-89730-01
- S. B. Kulkarni, Karbhari V. Kale, “Machine Translation Approaches” published in the proceedings of National level Conference on Emerging Trends in Information Technology, (eit 2006) held at Baramati during 29, 30 September 2006.
- S. B. Kulkarni, Karbhari V. Kale “Tokenization in Natural Language Processing” published in proceedings of IEEE sponsored International Conference “Advances in Computer Vision and Information Technology 07” held at Aurangabad during 28-30 November 2007.
- S. B. Kulkarni, Pradnya D. Deshmukh, Karbhari V. Kale,” “Lexico-Semantic divergence in English to Marathi Machine Translation” published in proceedings of National Conference on Emerging Trends and Applications In Computer Science 9-10 April 2010 at Shillong, Meghalaya.
- S. B. Kulkarni, Bharti Gawali, “Data Mining Techniques for Collection Development and Library” is published in the proceedings of National Conference held during 17,18 Feb. 2011 at College of Education and Research, Parel, Mumbai

**Book Published**

- **“Estimation of Soil Macronutrients Using Remote Sensing and GIS ”** by Bhise Pratibha R., Sonali B.Kulkarni, Vipin Y.Borole, LAP LAMBERT Academic International Publication, ISBN:978-620-0-43712-9, 14-11-2019
- **“Brain Tumor Detection Using Digital Image Processing”** by Vipin Borole, Sonali Kulkarni, LAP LAMBERT Academic International Publication, ISBN: 978-620-0-28887-5 , 17-10-2019
- **“Brain Computer Interface Techniques for Brain Rhythms in Meditation”** by Sonali B.Kulkarni , Pratibha R.Bhise , LAP LAMBERT Academic International Publication ,ISSN:978-620-3-30581-4,25-01- 2021.
- **“Remote Sensing and GIS techniques for Medicinal Plant Identification “**,Vipin Y. Borole , Sonali B. Kulkarni , LAP LAMBERT Academic International Publication, ISBN: 978-620-4-74478-0 ,22-09-2022
- **“Learning Skills in Students Using Brain Computer Interface”**,Pratibha R.Bhise , Sonali B.Kulkarni, LAP LAMBERT Academic International Publication,ISBN: 978-620-6-78049-6.,05-09-2023

### Conferences and Workshop Participation

- Attended Webinar on “Cyber Forensic Audit :Changing Role of Auditors “,Organized by BVICAM,New Delhi ,held on 02 April ,2022
- Attended Webinar on “Machine Learning –Simplified “,Organized by BVICAM, New Delhi ,held on 12 February ,2022
- Attended Webinar on “Role of Computational Reasoning For Effective Research “Organized by BVICAM, New Delhi ,held on 22 January 2022

- Attended Webinar on “Digital Health Using Mobile Technologies”, “Organized by BVICAM, New Delhi ,held on 06 January 2022
- Participated in 2<sup>nd</sup> International Conference on Computer Vision, High Performance Computing, Smart Devices and Networks (CHSN-2021), 20-21 August 2021.
- Participated 4<sup>th</sup> International Conference on Soft Computing and Signal Processing organized by Malla Reddy College of Engineering & Technology, Hyderabad, 19 June 2021
- Participated in 12<sup>th</sup> International Conference on Recent Trends in Information, Telecommunication and Computing – ITC 2021.
- Participated in 2 days International Webinar on “ Modern Nature Inspired Optimization Techniques “, Organized by Department of Mathematics ,Indira Gandhi National Tribal University , Amarkantak , during 24-25 January 2021.
- Attended Webinar on “ 6G for a Hyperconnected Future “, Organized by Bharati Vidyapeeth’s Institute of Computer Applications and Management ,New Delhi held on 11 September 2021.
- Attended Online workshop on” National Education Policy-2020 (The Future Education) ” ,Organized by Department of Computer Science and Information Technology , Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad held on 11 June 2021.
- Participated in International Conference on IoT Based Control Networks and Intelligent Systems, organized by St.Joseph’s college of engineering and Technology, Kottayam ,India. ,10-11 December 2020
- Participated in 2<sup>nd</sup> International Conference on Sustainable Communication Networks and application, organized by Surya Engineering College, Erode, India,6-7 August 2020.
- Participated in International Web Conference on “ Impact of Covid -19 on Library Resource Sharing “, Organized by MIT Group of Institutions ,Aurngabad,during 12-13 June 2020.
- Participated in Sate Level Avishkar held at Mumbai University During 27<sup>th</sup> to 30<sup>th</sup> January 2020.



- Attended Webinar on “ Vision : Marathwada 2025 :Towards Atmanirbhar Bharat”, Organized by Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad ,AIC-BAMU Foundation ,held on 29 August 2020.
- Participated in online Talk Show on “ Strategic Mindset For Post COVID World :Learners Perspective” ,organized by Department of Computer Science and Information Technology , Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad, held during 15 to 17 June 2020.
- Participated in International Symposium on “Recent Advancement in Information & Communication Technology”, Organized by Computer Society of India ,Aurangabad held on 29 December 2020
- Participated in three days’ workshop on “Current Research Avenues in Computer Science and Engineering”(CRACSE-2019) organized by Department of Computer Science and Information Technology Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad, on 16<sup>th</sup> August to 18<sup>th</sup> August 2019.
- Participated in one day National workshop on “Role of Higher Education in New India” Organized by Vivekanand Arts , Sardar Dalipsingh Commerce and Science Collee ,Aurangabad and Bhartiya Shikshan Mandal ,Deogiri Prant, 20<sup>th</sup> August 2019.
- Attended “One Day Author Workshop on”, Scientific Writing & Publishing Scholarly Articles”, Organized by Elsevier & Knowledge Resource Centre (University Library), Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad,30 January 2019
- Certified Internal ISO Audit, June 2018.
- Attended ISO Training Program Organized by Statistics and Planning Section, Dr.Babasaheb Ambedkar Marathwada University, Aurangabad.
- Participated in one day workshop on ”Stress Management “ by Manashakti Kendra Lonawala in Department of Computer Science and IT, Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad, On 27 March 2018
- Attended "Spoken Tutorial Program” Organized by IIT Bombay for faculties in all colleges, On 20 February 2018.

- Participated in two days workshop on “R-Tool”, Organized by Department of Computer Science and IT, Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad, on 12-13 January 2018
- Participated in workshop “Psychometric Assessment and Career Counseling “,Organized by Department of Computer Science &IT, Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad on 14 December 2017
- Participated in one day workshop “, Learning Management System”, Organized by Department of Computer Science & IT, Dr.Babasaheb Ambedkar Marathwada University , Aurangabad. on 13 December 2017
- Participated in one day author workshop on “Scientific writing & publishing scholarly articles”, at Knowledge Resource Center Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad on 7th Nov. 2017
- Attended in one day workshop on “Cognitive Technology” organized by Pralhad P.Chhabria Research Center,Pune on 10 November 2017
- Successfully Completed 25<sup>th</sup> Outreach Course On Hyperspectral Remote Sensing”, Organized by Indian Institute of Remote Sensing ,Dehradun, on 18-21 September 2017
- Participated in two days 1st National Symposium on “Age of Bioinformatics”, held at MGM’s Institute of Bioscience and Technology, Aurangabad from 11-12 September 2017.
- Attended workshop on “Revised Assessment & Accreditation Framework” Organized by IQACell, Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad.
- Attended ISO Training Program Organize by Statistics and Planning Section, Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad on 4 April 2017
- Attended workshop on ”New Maharashtra Act 2016”,Organized by Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad on 5 April 2017
- Participated in two days workshop on “Emotional Intelligence”, Organized by Department of Computer Science and IT, Dr.Babasaheb Ambedkar Marathwada University ,Aurangabad on 30-31 March 2017

- Participated in Training Program on “Sexual Harashment of women at workplace” On 21 February 2017
- Participated in “ICRACSET”, International Conference organized by G.Y Pathrikar College ,Aurangabad on 3 February 2017
- Participated in two day National Seminar on “Quality Sustenance and Quality Enhancement by IQAC at Institution Level”, Organized by Dr. G. Y. Pathrikar college of Computer Science and Information Technology, Aurangabad from 31st Jan. to 1st Feb 2017.
- Participated in one day workshop on “Self Learning Material Writing”, Organized by Institute of Open & Distance Learning, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 7th January 2017.
- Attended 2<sup>nd</sup> International Conference On “Cognitive Knowledge Engineering (ICKE-2016) “,Organized by Department of Computer Science and IT,Dr.BAMU, Aurangabad on 21-23 December 2016
- Participated in Latex Workshop , organized by Department of Computer Science & IT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 25 June 2016.
- Attended Refresher course in E-Governance and E-Learning at HRDC, Dr.Babasaheb Ambedkar Marathwada University, Aurangabad. During 15/11/2015 to 08/12/2015.
- Successfully completed the basic course on Remote Sensing, Geographical Information System & Global Navigation Satellite System Sponsored by national natural resources management system from 10 august to 27 November 2015.
- Participated in University- Industry Interaction Summit 2015, held at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad from 29-30 October 2015.
- Participated in training programme on sexual harassment of women at workplace (prevention, prohibition and redressal) Act, 2013, under Maharashtra state commission for women.
- Participated in e-Governance Workshop 2013 organized by Dr. Babasaheb Ambedkar Marathwada University and Directorate of Information Technology,

Government of Maharashtra on 30 July 2013 Aurangabad.

- Two days workshop on “Microcontrollers and its Applications” sponsored by IETE, 5-6 July 2013, Maulana Azad College, Aurangabad.
- One Day Training Workshop on “Right to Information (RTI) Act”, 13 March 2012 Organize by Yashada Pune and Dr. BAM University, Aurangabad at Department of Journalism, Dr.BAM University, Aurangabad.
- Attended the workshop on Speech Database Collection conducted by TIFR Mumbai, 19 Feb 2011.
- Participated in Aviskar 2010, 5th inter university research festival under “Agriculture & animal husbandry” in teacher category, at Maharashtra University of health sciences, Nashik, 21-23 January 2011.
- Participated in Workshop on Data Warehousing and Data Mining held in 25-27 Feb- 2010.
- Participated in Aviskar 2009 inter university state level research festival, Solapur university, 11 to 13 January 2010
- Participated IEEE sponsored International Conference “Advances in Computer Vision and Information Technology 09” held at Aurangabad November 2009.
- Participated in IEEE sponsored International Conference “Advances in Computer Vision and Information Technology 07” held at Aurangabad during 28-30 November 2007.
- Attended and Presented a paper entitled “Machine Translation Approaches” in National level Conference on Emerging Trends in Information Technology,(2006) held at Baramati during 29,30 September 2006.
- Participated in NAAC sponsored National seminar on “The Role of Internal Quality Enhancement”, Dec 28-30, 2005 at Yashwant Mahavidyalaya, Nanded.
- Participated and presented a paper entitled “New Trends & Technology in Education Field” at the 2nd National Level Conference on Interdisciplinary Research, held at Parbhani, on 15, 16 October 2005.
- Attended Workshop on “E-EDUCATION”, Dr.Babasaheb Ambedkar Marathwada University, Aurangabad, 16 September 2004.
- Attended Workshop on the “e- com perspective” Aurangabad,2-4 Feb 2001.

## University Duties

- PG D-CAS officer for October-November 2019 examination.
- Organizing team member for National Science Day 2020, organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
- Chairman, B. Sc. Multimedia and Networking course, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Chairman/Member of Affiliation Committee, Dr. B.A.M. University, Aurangabad.
- Member of syllabus setting committee for B.Sc. Comp Sci, B.C.A, B Sc. I.T. at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Ad-hoc Board member, B.Sc Computer Science Honors degree, Model College Ghansawangi, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
- Ad-hoc Board member, M.Sc Computer Science and M.Sc Information Technology, Department of Computer Science and Information Technology, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Chairman, B. Sc. Multimedia and Networking course, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Resource Person (Department of Chemical Technology)
- Subject expert on various Interview Committees.
- Worked as an external for Ph.D viva, S.R.T.M. University.
- Evaluator of Ph.D. Thesis, S.R.T.M. University, Nanded.
- Evaluator of M.Phil. Thesis, S.R.T.M. University, Nanded.
- Paper Setter, Evaluator and Modulator for Under Graduate & Post Graduate Courses.
- External examiner for M.Sc. Computer Science and M.Sc. Information Technology.
- Member, Redressal Committee nominated by Vice –Chancellor. Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Worked as Committee member in National Science Day Celebration Organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, 2019
- Worked as an Presiding Officer for Election Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 3-4 December 2017

- Organizing committee member of National Science day- 2017, Organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 27-28 February 2017.
- Member of organizing committee, University level Avishkar-2016 organized by Avishkar cell, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 27-28 December 2016.
- Member of Welcome/ Registration committee for Maharashtra State Inter-University Youth Festival Hosted by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on November 05-09, 2016.
- Organizing committee member of National Science day- 2015, Organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 27-28 February 2015.
- Recourse person, State Level Conference held during Feb 18-19, 2010 at Newasa, Pune University.
- Organized Two Computer Awareness Workshops for orphan students of SOS Charitable trust Pune on 11 and 26 May 2009.
- Organized one day training camp for students of Silicon Valley Certifications India Pvt. Ltd., Aurangabad in the month of May 2009
- Organizing committee member of National Science day- 2016, Organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 27-28 February 2016. Member of Organizing committee at Pre Science Congress-2014 on December 30-31,2014 organized by ISCA – Aurangabad Chapter Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Chairman/ Member of Publication committee for University level Avishkar-2014 organized by Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on November 24-25, 2014.
- Member of Ad-hoc board of Studies Computer Science & information Technology, Swami Ramanand Teerth Marathwada, University, and Nanded.
- Member of B.U.T.R, Computer Science, Swami Ramanand Teerth Marathwada University, Nanded.
- Subject expert, University Selection Committee, Swami.Ramanand.Teerth Marathwada

University, Nanded.

- Chairman, Paper Setter, examiner for U.G. and P.G. courses in Computer Science at Swami Ramanand Teerth Marathwada, University, Nanded.
- Conducting lecturers for NET/SET in School of Computational Science, Swami Ramanand Teerth Marathwada, University, Nanded.
- Member of KVK research group.
- B. Sc. + M.Sc. Integrated Course Coordinator (2009-2012), Department of CSIT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Subject expert on various Interview Committees.
- SET-NET Preparation, Deogiri College, Aurangabad 25/11/2011 and 01/12/2011 on Software Engineering.
- Member of committee for designing the curriculum of M. Sc. Computer Science, M. Sc. I.T. And B. Sc. Integrated Coerces of the Department.
- Setting up of the question paper for the DSHC examination DOEACC HW Examination. (National Level Examination).
- Member of M. Sc. Credit Based System Rule framing committee in the department.

### **Departmental Duties**

- Coordinated workshop of Registration committee for “ 3rd International Conference on Intelligent Systems, Cognitive Science and Knowledge Engineering” (ICKE 2023) during May 8-9, 2023
- Session chair of “ 3rd International Conference on Intelligent Systems, Cognitive Science and Knowledge Engineering” (ICKE 2023) during May 8-9, 2023
- Coordinator of One Day Workshop on “Emotion Management “ for M.Sc. Computer Science, M.Sc. Information Technology and M.Sc. Artificial Intelligence I year students on 11<sup>th</sup> January 2023

- Coordinator of One Day Workshop on “Details of UG and PG Curriculum Structure to be Framed in Line with NEP 2020”, on 16 March 2023
- coordinator of One Day Workshop on “Future Prospects for Students in NEP Implementation” on 19<sup>th</sup> December 2022
- Coordinator of Registration committee for “Advances in Computer Vision an Artificial Intelligence Technologies(ACVAIT-2022) held in Department of Computer Science and Information Technology, Dr.BAMU, Aurangabad,1 to 2 August 2022.
- Session chair of “Advances in Computer Vision an Artificial Intelligence Technologies(ACVAIT-2022) held in Department of Computer Science and Information Technology, Dr.BAMU, Aurangabad,1 to 2 August 2022.
- Coordinator of Registration committee for “Current Research Avenues in Computer Science and Engineering(CRACSE-2019)held in Department of Computer Science and Information Technology, Dr.BAMU, Aurangabad, on 16<sup>th</sup> August to 18<sup>th</sup> August 2019.
- Departmental Coordinator of workshop on “Personality Development & Emotion Management”, organized by Department of Computer Science and IT and Department of Life Long Learning Extension, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, 24 January 2019.
- Departmental NAAC Coordinator of Department of Computer Science and IT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Departmental IQAC Coordinator, Department of Computer Science and IT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Program Co-coordinator for Department Level Extension Centre run by Department of Lifelong Learning & Extension, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.(2018-19)
- Coordinator of “Women’s Day Celebration
- Coordinator of Spoken Tutorial 2018 held in Department of Computer Science on 20/02/2018



- Coordinator of workshop on Value Added course, Department of Computer Science & IT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, on 5-8 February 2018.
- Coordinator of one day workshop on “Learning Management System”, Department of Computer Science and IT, Dr. BAMU, Aurangabad, 13 December 2018
- Coordinator of one day workshop on Psychometric Assessment and Communication Skill, Department of Computer Science & IT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 14 December 2017
- Coordinator of R-Tool two day workshop organized by department of computer science and IT, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 12-13 January 2018.
- Department coordinator of University level Avishkar-2017 organized by Avishkar cell, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad on 23-25 December 2017.
- Invigilator of PG CET in Department of CS & IT on 10 July 2018
- Session Coordinator in International Conference on “ICRACSET” on 3 February 2017, Organized by G.Y. Pathrikar College, Aurangabad.
- Co-chair/ Co-coordinator in International Conference on “Cognitive Knowledge Engineering”(ICKE-2016), organized by Department of Computer Science and IT, Dr. B. A. M. U. Aurangabad on 21<sup>st</sup> to 23<sup>rd</sup> December 2016.
- Co-chair the Technical Session of National workshop on Microwave Remote Sensing Organized by Srinivasa Ramanujan Geospatial Chair, Department of Computer Science & IT, Dr. B.A.M.U. Aurangabad on 23 September 2014.
- Organizing committee member of National workshop on Microwave remote sensing organized by Srinivasa Ramanujan Geospatial Chair, Department of Computer Science & IT, Dr. B.A.M.U. Aurangabad on 22-24 September 2014
- Organizing committee member of National workshop on emerging trends in geospatial technology for smart city organized by Shrinivasa Ramanujan Geospatial Chair, Department of Computer Science & IT, Dr. B.A.M.U. Aurangabad on 19-20 September 2014.

- Chairman of Registration/ Cultural Committee of International Conference on “Knowledge Engineering”, 29th to 31st Jan, 2011.
- Chairman of Registration Committee Workshop on Data Warehousing and Data Mining held in Feb-2010.
- Member of Registration Committee of International Conference on “Advances in Computer Vision and IT”, November 28 to 30, 2007, organized by Department of Computer Science and IT.

### **ACHIEVEMENTS AND AWARDS**

- Got 1<sup>st</sup> Prize in AVISKAR 2019 Research festival during 20-21 January 2020 held at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- Completed certification on Internal Auditing for Quality Management System Based on ISO9001:2015 SO Certification.
- First in the order of Merit at the University level for Master’s Degree Course.
- Got 2<sup>nd</sup> Price in AWISHKAR 2011 Research festival during 23-25 Jan 2011 held at Nasik.

### **DETAIL OF EMPLOYMENT**

- Assistant Professor from 19/09/2008 till this date at Department of Computer Science & Information Technology, Dr, Babasaheb Ambedkar Marathwada University, Aurangabad.
- Lecturer from 13/12/04 to 18/09/2008 at School of Computational Science, Swami Ramanand Teerth Marathwada University, Nanded.
- Lecturer from 13/11/03 to 12/12/04 at Saraswati.Bhuvan.Education.Society’s College of Science, Aurangabad.
- Lecturer from 01/09/2002 to 12/11/2003 at College of Information Technology. And Management, Aurangabad.

**Date :**

**Place : Chhatrapati Sambhajanagar(M.S.)  
Bhagwanrao Kulkarni**

**Dr. Sonali**