Curriculum Vitae

Name: Dr. Saurabh Deshmukh

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Academic Credentials					
SR NO	**COURSE**	**COLLEGE/ SCHOOL**	**UNIVERSITY/BOARD**	**YEAR OF PASSING**	**% AGE/GRADE**
1	PhD	MPSTME	NMIMS	2015	-
2	M Tech (Comp Engg)	MPSTME	NMIMS	2008	CGPA 3.59 Distinction
3	BE (CSE)	J.N.E.C Aurangabad	Dr. B.A.M. U	2000	64.24 % First Class
4	Music Composition and Direction	Mumbai University, Music Department	Mumbai University	2002	A Grade
5	Dip Elex & Radio Engg	Govt Poly Aurangabad	Govt Poly Aurangabad	1997	68.42 % First Class
6	H.S.C	S.B. Jr College	Maharashtra State Board	1995	69 % First Class
7	S.S.C	S.B. High School	Maharashtra State Board	1993	74.57 % First Class

M. Tech. Project:

  Title: "Software Effort Estimation using Adaptive Neuro-Fuzzy inference System"

Synopsis: "Software Estimation is crucial process of predicting the amount of efforts required in order to complete a software project. In IT industry experts are assigned this job. The aim of this project was to create an imitator of such expert using Neuro –Fuzzy approach that would learn from past experiences and then would predict in better way than a human being, with more accuracy and efficiency. Implementations of Fuzzy input in non-traditional way and then make the software learn from past experiences using training databases was crucial part of the implementation. The project had been completed successfully with cost estimation accuracy over 85%".

Ph. D. Research:

  Title: "On the selection of audio descriptors and identification of a singer in North Indian Classical Music"

Synopsis: North Indian Classical Music's Information Retrieval is challenging area of research because of its Homophonic Texture of sound produced due to the continuous presence of drone of accompanying musical instruments like Tanpura. The descriptors that describe the unique content of the music are called as Audio Descriptors.

  Hybrid Selection Method was proposed and implemented to select audio descriptors for identification of singer in North Indian Classical Music. For selection of audio descriptors Wrapper approach was applied using various classifiers including K-nearest Neighbor, K means (and its variants), LBG(and its variants). Set of audio descriptors were finalized on the basis of proposed 'Weighting System' useful to calculate the Weight-age of each audio descriptor for given set of input audio excerpts.

  Highest singer identification accuracy of 91.3% was obtained for recordings of professional singers requiring reduced set of four audio descriptors, enough to identify a singer in North Indian Classical Music.

Key Research Areas: Sound Engineering, Sound/Music information Retrieval, Digital Signal Processing, Artificial Intelligence, Machine Learning

Experience

Sr no	Teaching Experience			
1	Bombay Institute of Technology, Worli, Mumbai			
	Designation	From	To	Total Exp
	Lecturer	25/08/2000	27/11/2000	3 Months
2	Babasaheb Gawde Institute of Technology ,Mumbai Central, Mumbai			
	Designation	From	To	Total Exp
	Ad-Hoc Lecturer	28/11/2000	24/10/2001	11 Months
3	Halo Technologies ,Manipal University, Thane, Mumbai			
	Designation	From	To	Total Exp
	Lecturer	30/10/2001	20/3/2002	5 Months
4	Naval Institute of Technology, Colaba, Mumbai			
	Designation	From	To	Total Exp
	Lecturer	23/03/2002	01/02/2004	1 Year 11 Months
5	Dwarkadas J. Sanghvi College of Engineering, Vile Parle (W), Mumbai			
	Designation	From	To	Total Exp
	Lecturer	03/02/2004	6/07/2008	4 Years 5 Months
6	Dwarkadas J. Sanghvi College of Engineering, Vile Parle (W), Mumbai			
	Designation	From	To	Total Exp
	Assistant Professor	07/07/2008	30/07/2009	1 Year
7	G.H Raisoni College of Engineering and Management, Wagholi, Pune			
	Designation	From	To	Total Exp
	Assistant Professor and HEAD of DEPT	1/8/2009	20/9/2015	6 Years 1 Month
8	D.Y. Patil College of Engineering, Talegaon, Ambi, Pune			
	Designation	From	To	Total Exp
	Dean Research & Development and HEAD of DEPT	21/9/2015	11/4/2017	1 Year 7 Months

9	Maharashtra Institute of Technology, Aurangabad			
	Designation	From	To	Total Exp
	Associate Professor NAAC Coordinator	27/4/2017	Till date	4 Years 3 months

List of Corse Taught/Teaching at UG level

Computer Networks, Operating Systems, System Programming, OOPS, Software Engineering, Design and Analysis of Algorithms, Data Structure, Mobile Computing, Multimedia Systems, Artificial Intelligence, Intelligent systems, ANN, Fuzzy Logic and Soft Computing.

List of Corse Taught/Teaching at PG level

Advanced OS, Machine Learning and Deep Learning, Research Methodology, Advanced Computer Networks.

Membership of Professional Bodies

ISTE, CSI

Computer/Software Proficiency

- Basic, Pascal, C, C++, Visual Basic, Java, Lisp, Prolog.
- MATLAB 19a, Toolbox (MIR, Neural Network, Fuzzy Logic, ANFIS, WT, Signal Processing)
- Visual FoxPro, VB.net, IBM RSA TOOL, Rational Rose
- Cakewalk, Cool Edit, Frooty Loops, ADOBE Multimedia Suit, NGwave Editor, Audacity 2
- Latex, Adobe Page-maker, Coral Draw.

Seminar/Workshop/ Industrial Training/ STTP//FDP/CEP/Conference Attended

SR NO	TITLE	ORGANIZED BY	BETWEEN DATES	DUTRATION
1	'J2ME Technology'	Department of Information Technology, D.J.S.C.O.E, Mumbai	10/8/06 to 11/8/06	**TWO DAYS**
2	'Microcontrollers and Embedded system design'	Department of Electronics Engineering ,D.J.S.C.O.E, Mumbai	27/11/06 to7/12/06	**TWO WEEKS**
3	'Faculty Development Program'	M.P.S.T.M.E, D.J.S.C.O.E, I.S.T.E, Mumbai	2/01/07 to 6/01/07	**ONE WEEK**
4	'Effective Communication and life skills'	Department of Biomedical Engg, D.J.S.C.O.E, Mumbai	2/6/08 to 7/6/08	**ONE WEEK**
5	'Recent Trends in advanced image processing'	Department of Electronics and Telecom. G.H.R.C.E.M, Pune	23/9/09 to 27/9/09	**ONE WEEK**
6	'Faculty Induction Training Program'	G.H Raisoni Academy For Human Excellence Pvt. Ltd	31/07/09 to 01/08/09	**TWO DAYS**
7	'MATLAB A-Z'	Department of First Year Engg, G.H.R.C.E.M, Pune	21/06/10 to 25/06/10	**ONE WEEK**
8	'Deep Learning'	Department of Computer Science and Engineering, Maharashtra Institute Of Technology, Aurangabad	2/7/2018 to 7/7/2018	**ONE WEEK**

Seminar/Workshop/ Industrial Training/ STTP//FDP/CEP/Conference organized

SR NO	TITLE	ORGANIZED BY	BETWEEN DATES	DUTRATION
1	'Advanced Computing Techniques'	Organized for Department of Computer Engineering, D.J.S.C.O.E, Mumbai	7/01/08 to 18/01/08	**TWO WEEKS**
2	"Recent Trends in Computing"	Organized for Department of Computer Engg, IT and MCA, G.H.R.C.E.M, Pune	21/12/09 to 25/12/09	**ONE WEEK**
3	'Recent Trends in Distributed System'	Organized for Department of Computer Engg, IT and MCA, G.H.R.C.E.M, Pune	08/01/13 to 12/01/13	**ONE WEEK**
4	Machine Learning and Deep Learning	Organized for Department of Computer Science and Engineering, Maharashtra Institute Of Technology, Aurangabad	22/7/2019 27/7/2019.	**ONE WEEK**

National/ International Papers Presented/Published:

1. "Role of young artists for National Regeneration": Published at 4th National Conference on Responsible Citizenship for National Regeneration 05, Vashi, Navi Mumbai 2005.

2. "Mirroring in Linux LVM": Published at National Conference on Emerging Trends in Computational Science and Information Processing, J.N.E.C, Aurangabad 2006.

3. "Shortest Path Finding:*A* Best First Beam Approach": Published at National Conference on Information and Communication Technology 06, DJSCOE, Mumbai 2006.

4. "Transform Based Steganography": Published at National Conference on Information and Communication Technology 06, DJSCOE, Mumbai 2006.

5. "Application of MANFIS system architecture in Software Estimation": Published at National Conference on Information and Communication Technology , DJSCOE, Mumbai 2008

6. "Wavelet Transform application in śruti recognition of Hindustani Classical Music": Published at National Conference on Information and Communication Technology, MPSTME, Mumbai 2009.

7. "Evaluation of Neuro-Fuzzy Approach for Software Estimation" Deshmukh S.H., Deshpande M.V., Bhirud S.G., Proc. of International Conference on Computer, Electrical and Systems Science and Engineering, CESSE 2009, WASET, Oslo, Norway, 2009.

8. "Singer Identification using LPC and MIR toolbox": Published at International Conference and workshop on Emerging Trends in Technology 2012, Thakur College of Engg, Kandiwli Mumbai, ISBN NUMBERS :973-93-80864-47-3/978-0-615-58717-2

9. "A Hybrid Selection Method of Audio Descriptors for Singer Identification in North Indian Classical Music": Published at Fifth International Conference on Emerging Trends in Engineering & Technology PP. 224-227, IEEE Explorer, Himeji, Japan, 2012.
http://ieeexplore.ieee.org/document/6495245/?reload=true

10. "Analysis and application of suitable audio feature extraction and classification method to be used for North Indian Classical Music's singer identification problem": Published at International Journal of Advanced research in Computer & Communication Engineering, vol. 3, no. 2, pp. 5401-5406, 2014.
http://www.ijarcce.com/upload/2014/february/IJARCCE1J a_saurabh_Analysis.pdf

11. "North Indian classical Music's singer identification by Timbre recognition using MIR toolbox": Published at International Journal of Computer Applications, vol. 91, no. 4, pp. 1-5, 2014.
http://research.ijcaonline.org/volume91/number4/pxc3894804.pdf

12. "Analysis of Audio Descriptor Contribution in Singer Identification Process": Published at International Journal of Emerging Technology and Advanced Engineering, vol. 4, no. 2, pp. 731-737, 2014.
http://www.ijetae.com/files/Volume4Issue2/IJETAE_0214_129.pdf

13. "A Novel Method to Identify Audio Descriptors, Useful in Gender Recognition from North Indian Classical Music Vocal": Published at International Journal of Computer Science and Information Technologies, vol. 5, no. 2, pp. 1139-1143, 2014
http://ijcsit.com/docs/Volume%205/vol5issue02/ijcsit2014050240.pdf

14. "A survey on Audio Retrieval System for Classification": Published at International Journal of innovative research in computer and communication Engineering- Vol 2, Issue 11, Nov-2014
https://www.rroij.com/open-access/a-survey-on-audio-retrieval-system-forclassification.pdf

15. "Audio Descriptive analysis of Singer and Musical Instrument Identification in North Indian Classical Music": Published at International Journal of Research in Engineering and Technology vol 4, Issue 6, pp 505-508 June-2015.
http://esatjournals.net/ijret/2015v04/i06/IJRET20150406087.pdf

16. "Specific Musical Instrument Identification in North Indian Classical Music": Published at International Journal of Science and Research, Vol.4 Issue 12, Dec-2015
https://www.ijsr.net/archive/v4i12/NOV152137.pdf

17. "Public Cloud Privacy using Two Layer Encryption(TLE)"
Presented by Co-Author: Mayur Parma, at Computer-Post Graduate Conference cPGCON-2016 organized by Saviribai Phule Pune University and Pimpri Chinchwad College of Engineering, Akurdi, Pune. 25-26 March 2016.

18. "A Comparative Analysis of Audio Descriptive Aspects of Singing Voice Identification in Indian Classical Music" Presented by Co-Author: Viraj Jamale, at Computer-Post Graduate Conference cPGCON-2016 organized by Saviribai Phule Pune University and Pimpri Chinchwad College of Engineering, Akurdi, Pune. 25-26 March 2016.

19. "Spatial Inverted Index to perform Quick Search in Spatial Database"
Presented by Co-Author: Ms. Supriya Kunwar: at Computer-Post Graduate Conference cPGCON-2016 organized by Saviribai Phule Pune University and Pimpri Chinchwad College of Engineering, Akurdi, Pune, 25-26 March 2016.

20. "Domain Relevance Features Opinion Mining"
Presented by Co-Author: Ms. Pranoti Jagtap: at Computer-Post Graduate Conference cPGCON-2016 organized by Saviribai Phule Pune University and Pimpri Chinchwad College of Engineering, Akurdi, Pune, 25-26 March 2016.

21. "Automatic Website Categorization Using Machine Learning"
Presented by Co-Author: Ms. Dhanashree Honavale: at Computer-Post Graduate Conference cPGCON-2016 organized by Saviribai Phule Pune University and Pimpri Chinchwad College of Engineering, Akurdi, Pune, 25-26 March 2016.

22. "Clustering for Cluster Based Boosting using Fuzzy Logic"

Presented by Co-Author: Ms. Yogesh Ghait: at Computer-Post Graduate Conference cPGCON-2016 organized by Saviribai Phule Pune University and Pimpri Chinchwad College of Engineering, Akurdi, Pune, 25-26 March 2016.

23. "Domain Ontology based Class Diagram Generation from Functional Requirements"

Presented by Co-Authors: S.B. Kalyankar, P.M. Mandge, V.R. Shinde, H. Pawar at National Conference on Advancement in Computer and Information Technology-2016.5-6 February 2016.

24. "A Three Stage Classifier for Efficient Website Categorization" International Journal of Computer Applications, PP 22-24 JCA Proceedings on National Conference on Advancements in Computer & Information Technology-2016

http://research.ijcaonline.org/ncacit2016/number2/ncacit3044.pdf

25. "Performance Evaluation using Weight Assignment to Audio Descriptors in Sound Information Retrieval Applications" Best Paper of Session Award at Third International Conference on Computing, Communication, Control and Automation 2017 Organized by Pimpri Chinchwad College of Engineering, Akurdi, Pune. IEEE explorer. Conference Date: 16-17 August 2017.

26. "Analysis and comparison of Timbral Audio Descriptors with various traditional audio descriptors used in Automatic Tabla Bol Identification in North Indian Classical Music". International Conference on Computational Science and Applications 2019 (ICCSA 2019) https://link.springer.com/book/10.1007/978-981-15-0790-8

27. "Inharmonic Frequency Analysis of Tabla Strokes in North Indian Classical Music" Book Chapter accepted in "Advances in Speech and Music Technology: Computational Aspects and Applications" in the Springer book series "Signal and Communication Technology.- Under Review"

28. "Automatic Tabla Stroke Source Separation Using Machine Learning." Fifth international conference on advances in computing and data sciences (ICACDS) 2021, Springer.

29. "North Indian Classical Music Tabla Tala (Rhythm) Prediction System Using Machine Learning." In: Biswas A., Wennekes E., Hong TP., Wieczorkowska A. (eds) Advances in Speech and Music Technology. Advances in Intelligent Systems and Computing, vol 1320. Springer, Singapore. https://doi.org/10.1007/978-981-33-6881-1_16.

30. "Analysis and Comparison of Timbral Audio Descriptors with Traditional Audio Descriptors Used in Automatic Tabla Bol Identification of North Indian Classical Music," In: Bhalla S., Kwan P., Bedekar M., Phalnikar R., Sirsikar S.(eds) Proceeding of International Conference on Computational Science and Applications. Algorithms for Intelligent Systems. Springer, Singapore.
https://doi.org/10.1007/978-981-15-0790-8_29

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Place: Aurangabad

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