

Dr. Varsha Patil

Vice-Principal, Professor & HoD

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<https://engg.matoshri.edu.in/academics/computer/about>



PROFILE

I am Professor and Head of the Computer Engineering Department, Matoshri College of Engineering & Research Centre (MCERC), Nashik. With ability to build successful and effective working relationships and a strong focus on fostering academic excellence, I am dedicated to empowering teachers, students and stakeholders. My passion for advancing knowledge and preparing future professionals fuels my commitment to academic excellence and creating a dynamic learning environment and to undertake interesting and challenging tasks in administration, academics, and research.



ACADEMIC QUALIFICATIONS

- MBA (HR) (2017)**
MCMRC, Savitribai Phule Pune University
- PhD, Computer Engineering (2009)**
BVCOE, Bharati Vidyapeeth, Pune
- ME, Computer Engineering (2000)**
COEP, Savitribai Phule Pune University
- BE, Computer Engineering (1990)**
SSGMCE, Sant Gadgebaba Amaravati University



PUBLICATIONS

- International Books 03**
- Edited Books 02**
- Conference Papers 20**
- Indexed at SCIE/SCI (03), SCOPUS (31), WoS (20)**
- Book Chapters 04**
- International Journal Papers 38**
- SCOPUS H-Index 07**

<https://www.scopus.com/authid/detail.uri?authorId=14819999400>



WORK EXPERIENCE

Academic & Research Experience- 33 Years

Academic Positions and Administrative Responsibilities – (from year)

- Professor (2009)
- Associate Professor (2004)
- Assistant Professor (1990)
- Head, Computer Engineering (2009)
- Vice –Principal (2009)
- Dean, Academics (2010)
- Research Guide & Head, Research Centre
- Coordinator, Tasks at Accreditation by NAAC
- Coordinator, Tasks at Accreditation by NBA
- Project Guide and Coordinator (UG & PG)

Roles & Responsibilities at University

- Chairman/Member, Board of Studies (2018-23)
- Member, Academic Council (2017-23)
- Member, Research & Recognition Committee (2017-23)
- Member, Faculty of Science & Technology
- Chairman/Member, Examination Committee



Awards

- Recipient of “Best Teacher Award”, Savitribai Phule Pune University
- Recipient of “Significant Contribution Award”, Computer Society of India
- Recipient of “Engineering Achievement

CORE COMPETENCIES

Administration | Analytical Thinking | Problem Solving | Team Management | Goal Oriented | Adaptive

SKILLS

Programming Languages :	C, C++, Python, SQL
Modelling Tools :	MS Visio, Rational Rose
Research Interest:	Machine Learning, Graph Processing, Parallel Computing, Image Processing, Language Translation
Documentation Tools :	Latex, MS Office
Courses Taught (UG & PG)	Research Methodology, Data Structures, Discrete Mathematics, Theory of Computations, Software Engineering, Data Mining....

PUBLICATIONS

International Books

(03)

- Author, "Data Structures Using C++", Oxford University Press, ISBN-10: 1259062538 ISBN-13: 978-1259062537
- Adaptation Author, "Discrete Mathematics", McGraw Hill, ISBN-10: 0198066236 ISBN-13: 978-0198066231
- Co-Author, "Theory of Computation Simplified", BPB Publications, ISBN-10: 9355510640, ISBN-13 : 978-9355510648

These books are prescribed at curriculum (Science and Technology at UG & PG Programs) of national and international universities and autonomous institutions.

Edited Books

(02)

- Proceeding of Doctoral Symposium on Natural Computing Research, DSNCR 2020, Ed. 1, DOI: 10.1007/978-981-33-4073-2, eBook ISBN-978-981-334-073-2, series vol-369, Publisher: **Springer** Singapore
- Proceeding of CPGCon 2014 "Post Graduate Computer Engineering Conference" by University of Pune, Volume I-IV, **Elsevier** Publishers, ISBN: 9789351072928

Book Chapters

(03)

- "Parameter Settings in Particle Swarm Optimization", in Handbook of Research on Soft Computing and Nature-Inspired Algorithms, as co-author with S M Kamalapur, IGI Global Information Science Reference PP- 101-132 ISSN: 2327-0411; eISSN: 2327-042X, DOI: 10.4018/978-1-5225-2128-0.ch004
- "Graph Visualization System for Human Density Computation Using IoT", as co-author with Bhavsar, S.K., Lecture Notes on Data Engineering and Communications Technologies , 2019, 26, pp. 719–724
- "A study of vision based human motion recognition and analysis", as co-author with G V Kale, Computer Vision: Concepts, Methodologies, Tools, and Applications, 2018, DOI: 10.4018/978-1-5225-5204-8.ch099, EID: 2-s2.0-85045073956

Serving as Reviewer at various National and International Journals and Conferences

(08)

RESEARCH

➤ Research Supervision

14

- PhD guide at Savitribai Phule Pune University, Pune
- PhD Completed Research Scholars : 06
- PhD Perusing: 08

➤ Funded Research Projects Completed

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PROFESSIONAL EXPERIENCE

Professor (MCERC, Nashik)

Since 2009

- Conduct comprehensive lectures and facilitate engage discussions to effectively deliver computer engineering curriculum to undergraduate and post graduate students.
- Mentor and guide students in their research projects fostering their critical thinking and problem-solving skills while providing valuable industry insights and guidance.
- Promote and publish research articles in reputable journals and conferences contributing to the advancement of knowledge in computer engineering and ensure an up-to-date curriculum.

Associate Professor (K. K. Wagh Institute of Engineering & Research, Nashik)

2004 to 2009

- Teach a range of courses in computer engineering at the undergraduate and post graduate levels, conduct and deliver lectures, facilitate discussions, and provide guidance to students.
- Mentor and advise undergraduate and post graduate students, supervise their projects and guide them in their academic and career goals.
- Engage in professional development activities, such as attending conferences, workshops, and seminars, to stay abreast of the latest advancements in the field.

Assistant Professor (K. K. Wagh Institute of Engineering & Research, Nashik)

1990 to 2004

- Teach courses in computer engineering at the undergraduate and graduate levels, engage lectures, lead discussions, and assess student performance.
- Mentor and advise students, supervise their projects and guide them in their academic and career goals.

IPR

Indian Patents (01: Granted, 02 Published)

(03)

- "IoT Based System for Computing Human Density for Critical Situation Recognition and Precaution for Avoiding Accidents", Patent Number: 430006, Status: **Granted**, Application No.201721046250. "IoT Based System for Detection of Pest Inside Fruits and Vegetables", Status- Published, Application No. 201921005563.
- "System and Method for Motion Analysis and Feedback for Amendment of Human Action", Status- Published, Application No. 201621029482.

Copyrights Registered

(10)

- Registered copyright for "Sparse Matrix and Its Efficient Representation ", Registration Number: L-72345/2018,
- Registered copyright for "A Novel Technique for Reconstruction of Super Resolution Image Reconstruction Using Natural Low Resolution Color Image ", Registration Number-L-70635/2017
- Registered copyright for "Questionnaire For Study and Analysis of Impact of stress On Health of Employee", Registration Number L-75629/2018,
- Registered copyright for "Research Scholar Handbook ", Registration Number-L-71157/2017
- Registered copyright for "Project Workbook", Registration Number- L-66962/2017
- Registered copyright for "Feature Inference Approach for Feature selection Using PSO", Registration Number 54044/2014-CO/L
- Registered Copyright for "Malware Detection Analysis and Classification of Malware on Android", Registration Number L-66147/2017
- Registered Copyright for "An Author Publication Information Retrieval Algorithm", Registration Number L-76338/2018
- Registered copyright for "Development of Novel Algorithm for Analysis and Visualization of Large Graph", Registration Number-L-69172/2017
- Registered copyright for "An Efficient Partition Building and Cut Set Computing Algorithm (AEPBCCA)", Registration Number-L-77828/2018

ADMINISTRATIVE RESPONSIBILITIES

Chairman, Board of Studies

2018 to 2023

- Lead the development and revision of the computer engineering curriculum, ensuring its alignment with industry standards, emerging technologies, and educational best practices.

Head, Research Centre at Computer Engineering

Since 2014

- Develop and implement policies and procedures that foster a culture of research excellence.
- Facilitate interdisciplinary collaborations and promote knowledge exchange among researchers, both within the institution and with external stakeholders.
- Put efforts to enrich the research centre's achievements and impact through publications, presentations, and participation in conferences and symposiums.

Vice Principal & Academic Dean

Since 2010

- Provide strong leadership as the Vice Principal, contributing to the strategic direction and overall management of the institution, ensuring academic excellence in all areas.
- Assist the Principal and support administrative team to develop and implement effective policies, procedures, and programs that support the institution's mission and goals.
- Foster a positive and inclusive college culture, promoting a safe and conducive learning environment for students, faculty, and staff.

Head of Computer Engineering Department

Since 2009

- Lead the Department, overseeing, strategic planning, and operational management to ensure the department's growth and success.
- Implement innovative initiatives to enhance the department's academic offerings
- Lead and supervise a team; foster a collaborative and inclusive work environment, effectively managing and supporting a team of faculty members and staff.

Contribution In Curriculum Development

Contributed for curriculum development at UG, PG Engineering (Computer, IT, AI&DS, CSD) and MCA in capacity of Chairman, Member Board of Studies at affiliated University and other Universities and autonomous institutes.

CERTIFICATIONS

Coursera (07) | NPTEL (04) | ATAL FDP (4) | OTHER (10)

ASSOCIATION WITH PROFESSIONAL SOCIETIES

- Professional Member of Association of Computing Machinery (ACM)
- Fellow member of the Institute of Engineers, India (IEI)
- Member of the Computer Science Teachers Association (CSTA)
- Life member of Indian Society for Technical Education (ISTE)
- Life member of Computer Society of India (CSI)
- Member of International Association of Engineers (IAENG)
- Life member of Institution of Electronics and Telecommunication Engineers (IETE)

WEB LINKS:

ResearchID	http://researchid.co/rid26759
Web of Science	https://www.webofscience.com/wos/author/record/HPF-0651-2023
Orchid ID	https://orcid.org/0000-0002-4267-616X
LinkedIn	https://in.linkedin.com/in/varsha-patil-063a4a25
Research Gate	https://www.researchgate.net/profile/Varsha_Patil9
Google Scholar	https://scholar.google.com/citations?user=S8FMucwAAAAJ&hl=en
Scopus	https://www.scopus.com/authid/detail.uri?authorId=14819999400
Vidwan	https://vidwan.inflibnet.ac.in/profile/181275
dblp	https://dblp.org/pid/40/3561.html

Prof. Varsha H. Patil (Selected Journal Publications)

SNo	Title	Authors	Published at	Year	DOI	Quartile & Indexing
1.	Graph partitioning and visualization in graph mining: a survey	Bhavsar, S.A., Patil, V.H. & Patil, A.H	International Journal of Multimedia Tools and Applications, Springer Nature, eISSN:1573-7721	2022	https://doi.org/10.1007/s11042-022-13017-5	Q1, Science Citation Index Expanded (SCIE), Scopus, UGC-CARE List
2.	An efficient author information retrieval tool for bibliographic record analysis	Patil Varsha, Bhavsar, S.A., Patil, A.H	Journal of Intelligent and Fuzzy Systems, IOS Press, Volume 39, Issue 1, pp 341–353, eISSN 1875-8967	2020	https://doi.org/10.3233/JIFS-191289	Q2 Web of Science(WoS): Science Citation Index Expanded
3.	A novel and intelligent vision-based tutor for Yogāsana: e-YogaGuru	Geetanjali Kale, Varsha Patil & Mousami M.	Machine Vision and Applications, 23, eISSN-1432-1769	2021	https://doi.org/10.1007/s00138-020-01141-x	Q2 Science Citation Index Expanded (SCIE), Scopus, UGC-CARE List
4.	Inflection rules for Marathi to English in rule based machine translation	Kharate, N.G., Patil, V.H.	International Journal of Artificial Intelligence (IJ-AI), 10(3), pp. n780–788, e-ISSN 2089-4872	2021	http://doi.org/10.11591/ijai.v10.i3.pp780-788	Q2 Scopus
5.	An Interactive Tool for Protein –Protein Interaction Network Visualization	Varsha H. Patil & Swati K. Bhavsar	International Journal of Innovative Technology and Exploring Engineering, PP: 41-44 Volume-8 Issue-2, ISSN: 2278-3075	2018	B2546128218 - International Journal of Innovative Technology and Exploring Engineering (IJITEE)	Q4 Scopus
6.	A study of vision based human motion recognition and analysis	Geetanjali Kale, Varsha Patil	International Journal of Ambient Computing and Intelligence, IGI Vol: 7(2),Pages: 18,ISB N13: 9781522552055	2016	https://doi.org/10.4018/IJACI.2016070104	Q2 Web of Science(WoS): (SCI/SCIE) Scopus
7.	An efficient secure multimodal biometric fusion using palm print and face image	Patil, V.H. Dhole, S.A.	International Journal of Applied Engineering Research, Volume 11, Issue 10, 2016,pp7147-7150, ISSN: 09734562	2016	Varsha Patil (0000-0002-4267-616X) - ORCID	Scopus
8.	Face recognition using curvelet transform	Dhole, S.A., Patil, V.H.	International Journal of Applied Engineering Research,ISSN09739769	2015	Varsha Patil (0000-0002-4267-616X) - ORCID	Q4 Scopus UGC-CARE List
9.	Super resolution for fast transfer of graphics over internet	Patil VH, Kharate G K, Bormane, Kamlapur	Journal of Multimedia, Volume 5, Issue 1, 2010, Pages 71-78 Academy Publisher	2010	10.4304/jmm.5.1	Scopus
10.	Selection of mother wavelet for image compression on basis of nature of image	Kharate, G.K.; Patil, V.H.; Bhale, N.L.	Journal of Multimedia Volume 2, Issue 6, 2007, Pages 44-51 ISBN: 17962048, Academy Publisher	2007	10.4304/jmm.2.6.44-51	Scopus