



Name- Dr. Mrs. Mangal Vedant Patil

Qualification M.E.(Electronics-VLSI), PhD (Electronics)

Experience- 24 Years

**Designation- Associate Professor and Head,
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Portfolio at college level:

- Head, Department of Electronics and Communication Engineering, Pune
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Conferences:

1. Suryawanshi, A., Patil, M. (2026). A Comprehensive Review of Hybrid Deep Learning Approaches for Retinal Fundus Image Segmentation and Classification. In: Virdee, B., Duarte Correia, S., Swaroop, A., Thakur, N., Shetty, S.D. (eds) Proceedings of the International Conference on Artificial Intelligence and Networks. ICAIN 2025. Lecture Notes in Networks and Systems, vol 1952. Springer, Cham.PP. 448-457 https://doi.org/10.1007/978-3-032-24926-5_34
2. Salunke, R.V., Shinde, A., Patrawala, H., Patil, M. (2026). Advanced Design Modelling & Implementation of Digital Twin for ACOPOStrak using Automation Studio: Techniques and Results. In: Virdee, B., Correia, S.D., Swaroop, A., Thakur, N., Shetty, S.D. (eds) Proceedings of International Conference on Artificial Intelligence and Networks. ICAIN 2025. Lecture Notes in Networks and Systems, vol 1962. Springer, Cham. https://doi.org/10.1007/978-3-032-25617-1_5
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6. K. Patil and Mangal Patil, "Comprehensive Review on Integrating Battery Management System with Digital Twin for Real-Time EV Battery State Estimation," 2025 1st International Conference on AIML-Applications for Engineering & Technology (ICAET), Pune, India, 2025, pp. 1-7, doi: 10.1109/ICAET63349.2025.10932289
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8. S. Shelke and Mangal Patil, "Exploring Machine Learning Techniques for Music Emotion Classification: A Comprehensive Review," 2024 11th International Conference on Computing for Sustainable Global Development (INDIACom), New Delhi, India, 2024, pp. 1188-1195, doi: 10.23919/INDIACom61295.2024.10498480.
<https://ieeexplore.ieee.org/abstract/document/10498480>

Publications-

1. P.R. Naregalkar, A.A. Shinde, M.V. Patil, "Artificial intelligence driven mental health diagnosis based on physiological signals", MethodsX, vol. 14,2025
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2. Patil A., Mangal Patil, et. al, "Harnessing the MERN stack for scalable E-commerce website design: A full-stack approach with MongoDB, Node.js, Express.js, and React.js", Journal of Integrated Science and Technology, vol.13(5), April 2025. doi: 10.62110/sciencein.jist. 2025.v13.1116
3. Moje R, Mhetre H. V., Patil Mangal, et. al., "Machine-driven techniques for early-stage tumor identification and categorization in Digital Mammography: A comprehensive overview", Journal of Integrated Science and Technology, vol. 13, Issue 5,2025. doi: 10.62110/sciencein.jist. 2025.v13.1105
4. Hemane H, Kaduskar V. P., Patil Mangal, et al., "Trust Chain: A private blockchain for secure data exchange", Journal of Integrated Science and Technology, vol. 13, Issue 4, 2025, doi:10.62110/SCIENCEIN.JIST.2025.V13.1083.
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7. V P Kaduskar, H. V Mhetre, Mangal V Patil, et. al., "Navigating the Frontier of Generative AI Integration in Healthcare: Adoption, Governance, and Legal Compliance", AI Healthcare Applications and Security, Ethical, and Legal Considerations, IGI Global, Aug .2024

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9. Mangal, P., Deolalikar R. (2023). Music Source Separation with Deep Convolution Neural Network. ICT Infrastructure and Computing. Lecture Notes in Networks and Systems, vol 520. Springer, Singapore. https://doi.org/10.1007/978-981-19-5331-6_21.
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14. Preeti Bamne, Mangal Patil, "A comparative study of different LSTM neural networks in predicting air pollutant concentrations" Indian Journal of Science and Technology, Vol: 13, Issue: 35, pp: 3664-3674, October 2020 (Web of Science).
15. Mangal Patil, Preeti Bamane, Supriya Hasarmani, "Efficient Watermarking in Color Video Using DWT-DFT and SVD Technique", Progress in Advanced Computing and Intelligent Engineering, Vol 1198, PP.978-981, Oct2020. (https://doi.org/10.1007/978-981-15-6584-7_8)
16. Preeti Bamane, Mangal Patil, "Multiple Linear Regression using TensorFlow Predicting Fuel Consumption" International Research Journal of Engineering and Technology (IRJET) Volume: 07, Issue: 06, June 2020.
17. M V Patil, Shaurya Srivastava, Parag Fadnis, Rishabh Sharma, "Arduino based Short Circuit Protection System using various sensors", International Journal of Scientific Research in Engineering and Management, Volume: 04, Issue: 06, June -2020
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31. Mangal Patil, Janardan Chitode, "Performance Evaluation of Digital Audio Watermarking based on Discrete Wavelet Transform for Ownership Protection", International Journal on Electrical Engineering and Informatics, Vol. 9, No. 1, March 2017. (SCOPUS)
32. Gaurav Singh Bisht, Vivek Kumar Verma, Anish Kumar Singh, M. V. Patil, "A Study on Vehicle Accident Alert System", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE)ISSN (Online): 2278 – 8875, Vol. 6, Issue 4, April 2017. pp.2383-2389.
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47. Mrs. Mangal V. Patil, Dr. J. S. Chitode, "A Concise Review of Digital Audio Watermarking Techniques ", CiiT International Journal of Digital Signal Processing, Vol 4, No 5, May 2012, pp.205-211(IF-0.126)
48. Mrs. Mangal V. Patil, Dr. J. S. Chitode, "Audio Watermarking: A Way to Copyright Protection", International Journal of Engineering & Research & Technology, Vol. 1 Issue 6, August – 2012, pp. 1–5. ISSN: 2278-0181(1.76)
49. Mrs. M. V Patil, Yatin Baluja, "Frequency domain-based data hiding technique for audio" Vol. 2, Issue 5, May 2013 PP. 1564-1569, (IF-1.23)
50. Mrs. M. V Patil," Audio and Speech Compression Using DCT and DWT Techniques", International Journal of Innovative Research in Science, Engineering and Technology, pp. 1712-1719, May 2013, Vol. 2, Issue 5, ISSN: 2319-8753, (IF-6.209)

51. Sahil Jain, Mudit Agarwal, M.V. Patil, "Biometric Voting Machine", NACICE-2013, Pune.
52. S. Watve, M. Patil and A. Shinde, "Review of Features and Classification for Spoken Indian Language Recognition using Deep Learning and Machine Learning Techniques," 2023 International Conference on Emerging Smart Computing and Informatics (ESCI), Pune, India, 2023, pp. 1-6, doi: 10.1109/ESCI56872.2023.10099742.
53. Mangal Patil, J S Morbale, A S Nigade, Saloni, Priya Padma, "Implementation of real time face mask recognition technique using Keras, TensorFlow ", Seventh International Conference on Smart Trends in Computing and Communications, 24th – 25th January 2023, Jaipur, India
54. Mrs. M V Patil, Komal Shedge, "Adaptive Audio Watermarking techniques: A Literature Review", Conference on Recent Trends in Engineering & Technology (ICRTET'2014), K. B. Jain College of Engineering, Chandwad. 978-93-5107-221-8, March 2014.

Book Chapters

1. Mangal Patil, Vishakha Patil, "Curvelet Based ECG Steganography for Protection of Data" Springer Lecture Notes in Computational Vision and Biomechanics book series (LNCVB, Vol. 28), pp 238-248, DOI: https://doi.org/10.1007/978-3-319-71767-8_20, P-ISBN: -978-3-319-71766-1, (Feb. 2018) (Springer Book Chapter)
2. Mangal Patil, Preeti Bamane, Supriya Hasarmani, "Efficient Watermarking in Color Video Using DWT-DFT and SVD Technique", Progress in Advanced Computing and Intelligent Engineering (Springer Book Chapter), vol 1198, PP. 978-981, Oct 2020. (https://doi.org/10.1007/978-981-15-6584-7_8)
3. Mangal Patil, J S. Chitode, "SVD based Audio Watermarking Algorithm Using Dual Watermark for Copyright Protection" New Visions in Science and Technology, B P International Vol.5, pp.107-120, ISBN:978-93-5547-120-8) DOI: 10.9734/bpi/nvst/v5/4163F

Projects/ Achievements:

Project: Dual Transform based Digital Audio Watermarking Technique

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