

Milind Padalkar

Curriculum Vitae

A-812, Assotech Cabana,
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Education

- 2011–2017 **Ph.D.**,
Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), Gandhinagar, India,
CPI 9.00/10.
Thesis title: *Novel Techniques for Auto-inpainting in Heritage Reconstruction*
Supervisor: Dr. Manjunath V. Joshi
- 2008–2010 **M.Tech. in Computer Engineering**,
Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, India,
CGPA 8.75/10.
Thesis title: *Histogram Based Efficient Video Shot Detection Algorithms*
Supervisor: Dr. Mukesh A. Zaveri
- 2004–2008 **B.E. in Information Technology**,
Finolex Academy of Management and Technology (FAMT), Ratnagiri,
University of Mumbai, India,
Aggregate Percentage 61.67%.
Project title: *Content Based Image Retrieval System*
Supervisor: Prof. Santosh V. Jadhav
- 2004 **Higher Secondary Certificate (H.S.C.)**,
Maharashtra State Board, India,
Percentage 80.50%.
- 2002 **Secondary School Certificate (S.S.C.)**,
Maharashtra State Board, India,
Percentage 85.86%.

Publications

Book

- [1] M. G. Padalkar, M. V. Joshi, and N. L. Khatri, *Digital Heritage Reconstruction Using Super-resolution and Inpainting*, B. A. Barsky, Ed. Synthesis Lectures on Visual Computing, Morgan & Claypool Publishers, 2016. [Online]. Available: http://www.morganclaypoolpublishers.com/catalog_Orig/product_info.php?products_id=1008.

Book Chapter

- [1] M. G. Padalkar and M. V. Joshi, “Automatic detection and inpainting of defaced regions and cracks in heritage monuments,” in *Digital Hampi: Preserving Indian Cultural Heritage*, A. Mallik, S. Chaudhury, V. Chandru, and S. Srinivasan, Eds. Springer Singapore, 2017. [Online]. Available: www.springer.com/gp/book/9789811057373.

Journal

- [1] M. G. Padalkar and M. V. Joshi, "Auto-inpainting heritage scenes: A complete framework for detecting and infilling cracks in images and videos with quantitative assessment," *Machine Vision and Applications*, vol. 26, no. 2-3, pp. 317–337, 2015. [Online]. Available: <http://dx.doi.org/10.1007/s00138-015-0661-6>.

Conferences and Workshops

- [1] M. G. Padalkar, M. V. Joshi, and N. Khatri, "Simultaneous inpainting and super-resolution using self-learning," in *Proceedings of the 26th British Machine Vision Conference (BMVC2015)*, X. Xie, M. W. Jones, and G. K. L. Tam, Eds., BMVA Press, 2015, pp. 105.1–105.12. [Online]. Available: <https://dx.doi.org/10.5244/C.29.105>.
- [2] M. G. Padalkar, M. V. Vora, M. V. Joshi, M. A. Zaveri, and M. S. Raval, "Identifying vandalized regions in facial images of statues for inpainting," in *ICIAP2013 Workshop on Multimedia for Cultural Heritage*, ser. Lecture Notes in Computer Science, vol. 8158, Springer Berlin Heidelberg, 2013, pp. 208–217. [Online]. Available: http://dx.doi.org/10.1007/978-3-642-41190-8_23.
- [3] M. G. Padalkar, M. V. Joshi, M. A. Zaveri, and C. M. Parmar, "Exemplar based inpainting using autoregressive parameter estimation," in *Proceedings of the International Conference on Signal, Image and Video Processing*, ser. ICSIVP'12, 2012, pp. 154–160, ISBN: 978-93-81583-19-7.
- [4] M. G. Padalkar, M. A. Zaveri, and M. V. Joshi, "Svd based automatic detection of target regions for image inpainting," in *Computer Vision - ACCV 2012 Workshops*, J.-I. Park and J. Kim, Eds., ser. Lecture Notes in Computer Science, vol. 7729, Springer Berlin Heidelberg, 2012, pp. 61–71. [Online]. Available: http://dx.doi.org/10.1007/978-3-642-37484-5_6.
- [5] M. G. Padalkar and M. A. Zaveri, "Dissolve detection based shot identification using singular value decomposition," in *Proceedings of the 2010 Fourth Asia International Conference on Mathematical/Analytical Modelling and Computer Simulation*, ser. AMS '10, Washington, DC, USA: IEEE Computer Society, 2010, pp. 312–316. [Online]. Available: <http://dx.doi.org/10.1109/AMS.2010.69>.

International Exposure

- Dec. 2017 Attended the *National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG2017)* at Indian Institute of Technology Mandi, India.
- Feb. 2016 Attended the ACM Distinguished Speaker talk titled "From Vision-Realistic Rendering to Vision Correcting Displays" by Prof. Brian A. Barsky (UC Berkeley) at Gandhinagar, India.
- Jan. 2016 Presented two papers in *XRCI Open 2016* at Bengaluru, India. [Posters]
- Sept. 2015 Presented paper in the *26th British Machine Vision Conference (BMVC2015)* at Swansea, United Kingdom. [Poster]
- Jan. 2015 Participated in the *Immersive Storytelling track, MIT Media Lab Design Innovation Workshop 2015* at Gandhinagar, India.
- Dec. 2013 Attended the *National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG2013)* at Indian Institute of Technology Jodhpur, India.
- Dec. 2012 Attended the *Eight Indian Conference on Vision, Graphics and Image Processing (ICVGIP2012)* at Indian Institute of Technology Bombay, India.

- Dec. 2012 Attended a *two day workshop on Digital Video Processing and Analytics (DVAP-12)* at Indian Institute of Technology Madras, India.
- Jan. 2012 Presented paper in the *International Conference on Signal, Image and Video Processing (ICSIVP2012)* at Indian Institute of Technology Patna, India. [Oral]
- May 2010 Presented paper in the *Fourth Asia International Conference on Mathematical/Analytical Modelling and Computer Simulation (AMS2010)* at Kota Kinabalu, Malaysia. [Oral]

--- Awards and Honours

- Jan. 2018 Served as a *Reviewer* in IEEE Access.
(Invited by: Dr. Mehul S. Raval, IEEE Access Associate Editor).
- Jul. 2017 Served as a *Reviewer* in Imaging Science Journal.
(Invited by: Dr. Mark A Richardson, Chief Editor, Imaging Science Journal).
- Sept. 2015 Awarded the *Xerox Research Centre India Travel Grant (₹ 1,25,000)* to attend the 26th British Machine Vision Conference (BMVC2015) at Swansea, United Kingdom.
- Nov. 2014 Served as an *Organizing Committee Member* in the 3rd ACCV Workshop on *e-Heritage* which was held in conjunction with the 12th Asian Conference on Computer Vision (ACCV2014), Singapore.
- Sep. 2014 Served as a *Reviewer* in the Eighth International Conference on Advances in Pattern Recognition (ICAPR 2015), Kolkata.
(Invited by: Program Chairs, ICAPR 2015).
- Jan. 2014 Served as a *Reviewer* in Multimedia Tools and Applications.
(Invited by: The Editorial Office, Multimedia Tools and Applications).

--- Competitive Exams

- 2007 **Graduate Aptitude Test in Engineering (GATE)**,
Discipline: Information Technology,
All India Rank: 46.

--- Skills

- Programming C/C++, OpenCV, CAFFE, Python, Matlab.
(Link to a video player I developed using OpenCV in 2010:
<http://www.mgpadaalkar.in/videoPlayer/>)
- Publishing / Presentation L^AT_EX, MS Office, LibreOffice
- Operating Systems Microsoft Windows, Linux

Experience

- Mar. 2017 – **Senior Research Engineer**,
till date *Vehant Technologies, NOIDA, Uttar Pradesh, India*,
Summary: Developed a novel technique for license plate super-resolution using convolutional neural networks; working on vehicle color recognition as well as guiding design engineers and interns on various projects including traffic-light phase recognition, vehicle counting, optical character recognition, image registration, vehicle logo recognition and object recognition in X-ray images.
- Apr. 2016 – **Teaching Assistant**,
Jul. 2016 *DA-IICT, Gandhinagar, India*.
- Aug. 2011 – **Junior Research Fellow (JRF)**,
Mar. 2016 *DA-IICT, Gandhinagar, India*,
Project: “Immersive Navigation for a Walk-through Application”, a part of the *Indian Digital Heritage Project* funded by Department of Science and Technology (DST), Govt. of India.
- Feb. 2011 – **Assistant Professor**,
Jul. 2011 *MCA Department*,
Sardar Patel Institute of Technology, Mumbai, India.
- Jan. 2011 – **Lecturer**,
Feb. 2011 *Department of Information Technology*,
Sardar Patel Institute of Technology, Mumbai, India.

Extra Curricular Activities

- 2007–2008 General Secretary of the institute (FAMT)
- 2007–2008 Chief Coordinator of the Information Technology Students Association (FAMT)
- 2005–2007 Coordinator for Athletics – Annual Sports (FAMT)
- 1999–2007 Participated and won in various games like Athletics, Chess and Football at College, Division, State and National level events
- 2001–2002 Awarded as the *National Athlete of the Year* by school (Vidya Vikasini English High School, Vasai (E))

Hobbies

- 🎵 Playing musical instruments like mouth-organ & guitar.
- 🌐 Surfing the Internet, especially various technical forums.
- 📝 Blog I also like to write articles in my blog: <http://milindpadalkar.wordpress.com>

References

- **Dr. Manjunath V. Joshi**
Professor, DA-IICT, Gandhinagar, India
✉ mv_joshi@daiict.ac.in ☎ +91-79-30510611
- **Dr. Suman K. Mitra**
Professor and Dean (Academic Programs), DA-IICT, Gandhinagar, India
✉ suman_mitra@daiict.ac.in ☎ +91-79-30510584

► **Dr. Mukesh A. Zaveri**

Associate Professor, SVNIT, Surat, India

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