

# Milind Padalkar

## Curriculum Vitae

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### Education

- 2011–till **PhD Candidate**,  
date *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*  
(Review received from two examiners, I will be defending my thesis on 14th April 2017)  
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](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, [Revised draft submitted to Prof. Santanu Chaudhury, IIT Delhi whose proposal for publishing an edited volume of chapters outlining

the outcome of different aspects of the Indian Digital Heritage (IDH)-Hampi project has been approved by Springer-Verlag (<http://digitalhampi.in/#book>).

### **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](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](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**

- 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 *26<sup>th</sup> 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

- Sept. 2015 Awarded the *Xerox Research Centre India Travel Grant (₹ 1,25,000)* to attend the 26<sup>th</sup> British Machine Vision Conference (BMVC2015) at Swansea, United Kingdom.
- Nov. 2014 Served as an *Organizing Committee Member* in the 3<sup>rd</sup> *ACCV Workshop on e-Heritage* which was held in conjunction with the 12<sup>th</sup> 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 **Frequently used:** C/C++ and Matlab.  
**Less frequently used:** OpenCV library (Link to a video player I developed using OpenCV: <http://www.mgpadalkar.in/videoPlayer/> )  
**New to:** Python and libraries for deep learning viz. Keras, Torch, CAFFE and Theano.
- Publishing /  $\text{\LaTeX}$ , MS Office, LibreOffice  
Presentation
- Operating MS Windows, Linux  
Systems

## --- Experience

- Mar. 2016 – **Senior Research Engineer**,  
till date *Vehant Technologies, NOIDA, Uttar Pradesh, India.*
- 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](mailto: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](mailto:suman_mitra@daiict.ac.in) ☎ +91-79-30510584
- **Dr. Mukesh A. Zaveri**  
*Associate Professor, SVNIT, Surat, India*  
 ✉ [mazaveri@coed.svnit.ac.in](mailto:mazaveri@coed.svnit.ac.in) ☎ +91-261-2201766