Milind Padalkar

Curriculum Vitae

63, Beach Towers,
P. Balu Marg,
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Education

2011–till date **PhD Candidate**,
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*
(Thesis submitted, under review)
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, 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, *Super-resolution and Inpainting: Application to Digital Heritage Reconstruction*. Morgan Claypool Synthesis Lectures on Visual Computing: Computer Graphics, Animation, Computational Photography and Imaging, [**Book under development (prospectus accepted, revised draft submitted)** (`http://www.morganclaypool.com/toc/vcp/1/1`), Series Editor Prof. Brian Barsky (UC Berkeley).]

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 to be 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`.

[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

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

Sept. 2015 Awarded the *Xerox Research Centre India Travel Grant (₹ 1,25,000)* to attend the 26^{th} British Machine Vision Conference (BMVC2015) at Swansea, United Kingdom.

Nov. 2014 Served as an *Organizing Committee Member* in the *3^{rd} ACCV Workshop on e-Heritage* which was held in conjunction with the 12^{th} 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. Torch, CAFFE and Theano.

Publishing / Presentation LaTeX, MS Office, LibreOffice

Operating Systems MS Windows, Linux

Experience

Apr. 2016 – Jul. 2016 **Teaching Assistant**,
DA-IICT, Gandhinagar, India.

Aug. 2011 – Mar. 2016 **Junior Research Fellow (JRF)**,
DA-IICT, Gandhinagar, India,
Project: "Immersive Navigation for a Walk-through Application" funded by Department of Science and Technology (DST), Govt. of India.

Feb. 2011 – Jul. 2011 **Assistant Professor**,
MCA Department,
Sardar Patel Institute of Technology, Mumbai, India.

Jan. 2011 – Feb. 2011 **Lecturer**,
Department of Information Technology,
Sardar Patel Institute of Technology, Mumbai, India.

Extra Curricular Activities

2007–2008 General Secretary of the institute

2007–2008 Chief Coordinator of the Information Technology Students Association

2005–2007 Coordinator for Athletics – Annual Sports

1999–2007 Participated and won in various games like Athletics, Chess and Football at College, Division, State and National level events

2001–2002 Awarded by school as the *National Athlete of the Year*

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
  ✉ *mazaveri@coed.svnit.ac.in* ☎ +91-261-2201766