

Dr. RAHUL UPNEJA
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Department of Mathematics
Sri Guru Granth Sahib World University,
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Teaching Experience:

- Assistant Professor at Sri Guru Granth Sahib World University, India from 20th July 2012.
- I am teaching M.Sc, MCA, M.Tech. and B.Tech classes.
- Orientation course attended from 9th June 2014 to 5th July 2014 at Academic Staff College, Punjabi University, Patiala.

Academic Qualification:

- Ph.D. in Digital Image Processing from Department of Computer Science, Punjabi University, Patiala, Punjab
- 2010: Post Graduate Diploma in Computer Science (P.G.D.C.A.) with distinction, done from Computer Centre, Punjabi University, Patiala.
- 2007: M.Sc. Mathematics, done from Department of Mathematics, University of Rajasthan, Jaipur.
- 2005: B.Sc. (with Mathematics, Computer Science, and Physics), done from S.G.N. Khalsa College, Sri Ganganagar, Rajasthan.
- 2002: Senior Secondary (Science) with distinction in Math, done from Bhopalwala Arya Senior Secondary School, Sri Ganganagar.
- 2000: Secondary School, done from Bhopalwala Arya Senior Secondary School, Sri Ganganagar.

Awards:

- Travel Grant from Department of Science and Technology to present a Research paper in London, U.K.

- Best merit paper (Student Category) award in London, U.K. from International Association of Engineers.
- Junior Research Fellowship Award (JRF-NET-June 08)
- National Eligibility Test for Lectureship (NET-June 09)
- Junior Research Fellow (**CSIR-JRF**) [Oct. 2009 to Sept. 2011]
- Senior Research Fellow (**CSIR-SRF**) [Oct. 2011 to July 2012]
- Graduate Aptitude Test for Engineering (GATE) -2008 with **AIR-365**

Memberships of Professional Bodies:

- Reviewer of IEEE Transaction on Image Processing Journal
- Membership of *International Association of Engineers (IAENG)* Member. No. 113415
- Membership of *International Association of Computer Science and Information Technology (IACSIT)* Member. No. 80341595

Research Plan

Image Denoising and Character Recognition with the help of Accurate Radial Moments. Try to explore the moments in real time applications.

Area of Research

Digital Image Processing, Pattern Recognition, Applied Mathematics

Publications Based on Research Work

Book

1. Rahul Upneja, Accuracy of Rotation Invariant Moments for Image Analysis, Lambert Academic Publishing, Germany, ISBN: 978-3-659-27398-8 (2014).

Journals

1. Rahul Upneja, Chandan Singh, Fast Computation of Jacobi-Fourier Moments for Invariant Image Recognition, Pattern Recognition (Acceptor for publication), 2014, **Impact Factor-2.584**. Available online at www.sciencedirect.com.
2. Chandan Singh, Ali Mohammed Sahan, Rahul Upneja, An effective and fast face recognition system using hybrid features of orthogonal rotation invariant moments and wavelet transforms Journal of Electronic Imaging 23(4) (2014). **Impact Factor-0.850**. Available online at www.spie.org.
3. Chandan Singh, Rahul Upneja, Accurate Calculation of High Order Pseudo-Zernike Moments and Their Numerical Stability, Digital Signal Proc., 27, 95-106, 2014. **Impact Factor-1.495**. Available online at www.sciencedirect.com
4. Chandan Singh, Rahul Upneja, Error Analysis in the Computation of Orthogonal Rotation Invariant Moments, Journal of Mathematical Imaging and Vision, Online First, DOI:10.1007/s10851-013-0456-1 **Impact Factor-2.330**, Available online at www.springerlink.com
5. Chandan Singh, Ekta Walia, Rahul Upneja: Accurate Calculation of Zernike Moments, Information Sciences. 233 (1), 255-275, 2013. **Impact Factor-3.893**, Available online at www.sciencedirect.com
6. Chandan Singh, Rahul Upneja: Fast and Accurate method for High Order Zernike Moments Computation, Applied Mathematics and Computation, 218, 7759–7773, 2012. **Impact Factor-1.600**, Available online at www.sciencedirect.com
7. Chandan Singh, Pooja Sharma, Rahul Upneja: On Image Reconstruction, Numerical Stability and Invariance of Orthogonal Radial Moments and Radial Harmonic Transforms, Pattern Recognition and Image Analysis, 21 (4), 663-676, 2011. **ISSN: 1054-6618**, Available online at www.springerlink.com
8. Chandan Singh, Rahul Upneja, Accurate Computation of Orthogonal Fourier-Mellin Moments, Journal of Mathematical Imaging and Vision, 44 (3), 411-431, 2012. **Impact Factor-2.330**, Available online at www.springerlink.com

9. Chandan Singh, Rahul Upneja, Accuracy and Numerical Stability of High Order Polar Harmonic Transforms, IET Image Processing, 6 (6), 617-626, 2012. **Impact Factor-0.676**
Available online at www.ieeexplore.ieee.org.
10. Chandan Singh, Rahul Upneja, Error Analysis and Accurate Calculation of Rotational Moments, Pattern Recognition Letters, 33, 1614-1622, 2012. **Impact Factor-1.062. Available online at www.sciencedirect.com**
11. Ekta Walia, Chandan Singh, Rahul Upneja, A Comment on "Fast and accurate method for radial moment's computation" by Khalid M. Hosny [Pattern Recognition Letters, 31(2010), 143-150], Pattern Recognition Letters 33 (16), 2224–2225, 2012. **Impact Factor: 1.062. Available online at www.sciencedirect.com**
12. C. Singh, E. Walia, Pooja, R. Upneja, Analysis of algorithms for fast computation of pseudo Zernike moments and their numerical stability, Digital Signal Proc., 22 (6), 1031–1043, 2012. **Impact Factor-1.495. Available online at www.sciencedirect.com.**

Conferences

1. Chandan Singh, Rahul Upneja, Improving Accuracy of Pseudo Zernike Moments using Image Interpolation, International Journal of Computer Applications (ISSN: 0975 – 8887). Presented in IRAFIT-2102, Held at Punjabi University Patiala, 21-23 March 2012. **Available online at www.ijcaonline.org**
2. Chandan Singh, Rahul Upneja, A Computational Model for Enhanced Accuracy of Radial Harmonic Fourier Moments, Presented in “World Congress of Engineering- The 2012 International Conference of Signal and Image Engineering (ICSIE'12)”, 4-6 July 2012, Imperial College, London, U.K. (**Sponsored by Department of Science of Technology, India**).

Personal Details:

Name:	Rahul Upneja
Father Name:	Om Prakash
Date of Birth:	Sept. 06, 1985
Language Proficiency:	English/Punjabi /Hindi
Nationality:	Indian