

**Dr.Pinaki Pratim Acharjya**

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**ACADEMIC QUALIFICATIONS:**

B.Tech, M.Tech, Ph.D

**AREA OF TEACHING INTEREST:**

Data structure, Operating Systems, Computer Architecture, Software Engineering.

**AREA OF RESEARCH INTEREST:**

Image Processing and Digital signal processing.

**ACADEMIC EXPERIENCE:**

Nine years.

**RESEARCH PROJECT SUBMITTED/ONGOING:**

R & D Project proposal submitted as Principal Investigator at DST west Bengal entitled "Implementation of intelligent image segmentation and facial emotion recognition system".

**RESEARCH PAPERS PUBLISHED IN INTERNATIONAL JOURNAL:**

[1] Pinaki Pratim Acharjya and Esha Dutta, "Image Segmentation and Contour Recognition Based on Mathematical Morphology", International Journal of Computer and Information Engineering, ISSN: 1307-6892, Vol. 11, pp. 1094 - 1097, November 2017.

[2] Kri. Sandhya, H.B. Mahapatra, Birendra Goswami and Pinaki Pratim Acharjya, "Selection of SDM: A Fuzzy AHP Approach", International Journal of Computer Applications, ISSN: 0975 – 8887, Volume 140, No.8, pp. 13-19, April 2016.

[3] Pinaki Pratim Acharjya and Dibyendu Ghoshal, "Interpretation of watershed transform based image segmentation from the concept of statistical moments", International Journal of Applied Engineering Research, ISSN 0973-4562, Vol. 10, Issue 19, pp. 40553-40556, November 2015.

[4] Pinaki Pratim Acharjya and Dibyendu Ghoshal, "An Improved Method for Image Segmentation Based on Mathematical Morphology and Mean Value of K-Mean Clusters", International Journal of Applied Engineering Research, ISSN 0973-4562, Vol. 10, Issue 19, pp. 40548-40552, November 2015.

[5] Abhisek Neogi, Jayesh Varma and Pinaki Pratim Acharjya, "Segmentation of noisy digital images with stochastic gradient kernel", International Journal of Computer, Information Science and Engineering ISSN: ISSN: 1307-6892, Vol.8, Issue 11, pp. 1964-1971, November 2014.

- [6] Dibyendu Ghoshal and Pinaki Pratim Acharjya, "Image segmentation by mathematical morphology: an approach through linear, bilinear and conformal transformation", International Journal of Computer, Information Science and Engineering ISSN: ISSN: 1307-6892, Vol.8, Issue 8, pp. 1101-1104, May 2014.
- [7] Pinaki Pratim Acharjya, Dibyendu Ghoshal, "An image matching method for digital images using morphological approach", International Journal of Computer, Information Science and Engineering ISSN: ISSN: 1307-6892, Vol.8, Issue 5, pp. 729-733, May 2014.
- [8] Dibyendu Ghoshal, Pinaki Pratim Acharjya, "Effect of Various Spatial Sharpening Filters on the Performance of the Segmented Images Using Watershed Approach Based on Image Gradient Magnitude and Direction", International Journal of Computer Applications, ISSN: 0975 – 8887, Vol. 82, No. 6, pp. 10-26, November 2013.
- [9] Pinaki Pratim Acharjya, Santanu Santra, Dibyendu Ghoshal, "A Comparative Study on Image Segmentation Using Various Combinations of Spatial Filters and Structuring Elements in Watershed Algorithm", International Journal of Electronics Communication and Computer Engineering, Volume 4, Issue 3, ISSN (Online): 2249–071X, ISSN (Print): 2278–4209, pp. 935-939, March 2013.
- [10] Pinaki Pratim Acharjya, Ritaban Das, Dibyendu Ghoshal, "Study and Comparison of Different Edge Detectors for Image Segmentation", Global Journal of Computer Science and Technology Graphics & Vision, ISSN: 0975-4172 (Online), ISSN: 0975-4350 (Print), Volume 12, Issue 13 Version 1.0, pp. 29-32, October 2012.
- [11] Pinaki Pratim Acharjya, Dibyendu Ghoshal, "A New Image Segmentation Algorithm for Grid Computing", International Journal of Scientific and Research Publications, ISSN: 2250-3153, Volume 2, Issue 10, pp. 1-4, October 2012.
- [12] Pinaki Pratim Acharjya, Dibyendu Ghoshal, "An Effective Human Fingerprint Segmentation Method using Watershed Algorithm", International Journal of Computer Applications, ISSN: 0975 – 8887, Volume 53– No.13, pp. 23-26, September 2012.
- [13] Pinaki Pratim Acharjya, Dibyendu Ghoshal, "A Modified Watershed segmentation Algorithm using Distances Transform for image Segmentation", International Journal of Computer Applications, ISSN: 0975 – 8887, Volume 52, No.12, pp. 46-50, August 2012.
- [14] Pinaki Pratim Acharjya, Dibyendu Ghoshal, "Watershed Segmentation based on Distance Transform and Edge Detection Techniques", International Journal of Computer Applications, ISSN: 0975 – 8887, Volume 52– No.13, pp. 6-10, August 2012.

## RESEARCH PUBLICATION IN INTERNATIONAL CONFERENCE:

- [1] Sagnik Dutta, Pinaki Pratim Acharjya and Esha Dutta, "Authentication using Digital Signature Algorithm with Montgomery Modular Multiplier", Proc. IEEE sponsored 2nd International conference on Electronics, Communication and Aerospace Technology, pp. 580-582, Coimbatore, Tamilnadu, India, March 2018.
- [2] Dibyendu Ghoshal, Pinaki Pratim Acharjya and Sagnik Dutta, "Morphological Image Segmentation Based on Vectorization" Proc. IEEE sponsored 2nd International conference on Electronics, Communication and Aerospace Technology, pp. 583-586, Coimbatore, Tamilnadu, India, March 2018.
- [3] Soumitra Roy chowdhury and Pinaki Pratim Acharjya, "Educationalm Data Mining Using K-means clusters", Proc. Sixth International Conference On Contemporary Engineering And Technology, pp. 59, Chennai, March 2018.
- [4] Pinaki Pratim Acharjya and Sagnik Dutta, "An aspect of biometric image segmentation and authentication for digital images", Proc IEEE sponsored International Conference on Computational Intelligence and Computing research, pp. 216-223, Coimbatore, Tamilnadu, India, Decemberrn2017.
- [5] Dibyendu Ghoshal and Pinaki Pratim Acharjya, "Study of Watershed Approach for Morphological Based Gradient Image Acquisition", Proc. IEEE sponsored International Conference on Navigational Systems and Signal Processing Applications, pp. 144-148, Guntur, Andra Pradesh, India, December 2013.
- [6] Dibyendu Ghoshal and Pinaki Pratim Acharjya, "Morphological Image Segmentation Using Marker-Controlled Watershed Transformation", Proc. IEEE sponsored International Conference on Navigational Systems and Signal Processing Applications, pp. 137-143, Guntur, Andra Pradesh, India, December 2013.
- [7] Dibyendu Ghoshal, Pinaki Pratim Acharjya and Uddalak Chatterjee, "An Approach to Morphological Image Segmentation for Noisy Digital Images", Proc. IEEE sponsored International Conference on Navigational Systems and Signal Processing Applications, pp. 291-295, Guntur, Andra Pradesh, India, December 2013.
- [8] Pinaki Pratim Acharjya, "An improved 3D image segmentation approach for imbrications of hard piece of earth's surface based on marker-controlled watershed transform", Proc. 4th International Conference on Recent Advances of Mathematics in Engineering and Management, pp. 27-30, Santiniketan, West Bengal, India, January 2012.
- [9] Gurucharan Banerjee and Pinaki Pratim Acharjya, "An effective image segmentation technique for gray scale images with low contrast", Proc. 4th International Conference on Recent Advances of Mathematics in Engineering and Management, pp. 31-35, Santiniketan, West Bengal, India, January 2012.

## RESEARCH PUBLICATION IN NATIONAL CONFERENCE:

- [1] Pinaki Pratim Acharjya and Samir Bachar, "Mathematical Morphology for Gradient Image Acquirement", Proc. IIPC sponsored with the technical collaboration of IEEE kolkata Two day National Conference on Recent Advances in Science, Engineering and Management, Santiniketan, West Bengal, India, pp. 204-211, 20th -21st February 2016.
- [2] Pinaki Pratim Acharjya and Jayashree Debsinha, "Satellite image segmentation approach based on marker controlled watershed algorithm", Proc. AICTE-IIPC sponsored Two day National Conference on Recent Advances in Mathematics, Engineering and Management, Santiniketan, West Bengal, India, pp. 349-354, 22nd -23th March 2014.
- [3] Santanu Santra, Uddalak Chatterjee, Gurucharan Banerjee and Pinaki Pratim Acharjya, "Design and Implementation of quantum cellular based novel XOR gate with minimum complexity and cell count", Proc. AICTE-IIPC sponsored Two day National Conference on Recent Advances of Mathematics in Engineering and Management, Santiniketan, West Bengal, India, pp.305-314, 22nd - 23th march 2014.
- [4] Pinaki Pratim Acharjya, Sourav Dinda, Ritaban Das and Dibyendu Ghoshal, "Edge detection based on morphological approach", Proc. IEEE sponsored National Conference on Research Trends in Computer Science and Application, West Bengal, India, pp. 59-62, 8th February 2014.
- [5] Pinaki Pratim Acharjya, Santanu Santra, Uddalak Chatterjee and Dibyendu Ghoshal, "Digital Color Image Segmentation Approach Based On Minimum Mean Square Error Filtering and Marker Controlled Watershed Transform", Proc. IEEE sponsored National Conference on Research Trends in Computer Science and Application, West Bengal, India, pp. 54-58, 8th February 2014.