# CURRICULUM VITAE

**Name: ANANDARUP ROY**

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**Research Activities**:

- Currently developing a system to capture and process handwritten data online. We use probabilistic models of neural network as well as some unsupervised methods like expectation maximization.
- During my establishment at ECSU, ISI, I took active part in designing an advisory system to control and enhance the performance of a welding process. The advisory system was built on the basis of neural models for the welding system. It also incorporates online processing of welding videos. My implementation work is with C on Unix platform and Matlab on Windows OS.
- Doing a research oriented work on segmentation of color images. My theoretical area is *statistical modeling of color images*. Field of application is *text extraction from color images*. My responsibilities are to perform theoretical derivations as well as to implement derived algorithms. My implementation work is with C on Unix platform and Matlab on Windows OS.
- Worked with Handwritten document analysis and submitted my dissertation "Skew Detection and Character Segmentation for Handwritten Bangla Words" at M. Sc. level. During this dissertation project we constructed an efficient algorithm for extracting characters from Bangla words. My task was to implement and to take active part on deriving the algorithm.

**Publications**:

**Journal Papers**:

1. Pradip Ghanty, Samrat Paul, **Anandarup Roy**, Dipti Prasad Mukherjee, Nikhil R. Pal, M. Vasudevan, Hemant Kumar and A.K. Bhaduri, *A Fuzzy Rule Based Approach for Predicting Weld Bead Geometry in Gas Tungsten Arc Welding*, Accepted in Science and Technology of Welding and Joining (STWJ), October 20, 2007.
2. Tapan Kumar Bhowmik, Pradip Ghanty, **Anandarup Roy** and Swapan Kumar Parui, *SVM-Based Hierarchical Architectures for Handwritten Character Recognition*, Submitted to International Journal of Document Analysis and Recognition , springer, March 19, 2008.

**Conference Proceedings**:

1. **Anandarup Roy**, Swapan Kumar Parui, Amitav Paul and Utpal Roy, *Color Based Image Segmentation*, Accepted in International Conference on Information Technology (ICIT- 2008), December 2008, India.
2. **Anandarup Roy**, Swapan Kumar Parui, Amitav Paul and Utpal Roy, *A Color Based Image Segmentation and its Application to Text Segmentation*, Accepted in Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP- 2008), December 2008, India.

3. Tapan Kumar Bhowmik, Pradip Ghanty, **Anandarup Roy**, Swapan Kumar Parui and Utpal Roy, *Skew correction and Character Segmentation for Handwritten Bangla Words using Support Vector Machine*, Proc. of International Conference on Information Technology (INTL-INFOTECH 07), pp. 572-577, March 2007, India.

4. P. Ghanty, **A. Roy**, N.R. Pal, D.P. Mukherjee, H. Kumar, M. Vasudevan, A.K. Bhaduri and P. Barat, *Fuzzy Logic and Image Processing based Approaches for Estimation of Weld Bead Geometry*, Proc. of $9^{\text{th}}$ Technical Programme Discussion Meeting of BRNS Projects (TPDM), pp. 20-27, February 2007, India.

5. **Anandarup Roy**, Swapan Kumar Parui and Utpal Roy, *A Beta Mixture Model Based Approach to Text Extraction from Color Images*, Proc. of International Conference on Advances in Pattern Recognition (ICAPR- 2007), pp. 321-326, January 2007, India.

6. **Anandarup Roy**, Prabhat Kumar Ray and Swapan Kumar Parui, *Text Extraction from Color Images using a Mixture Model of Dirichlet Distributions*, Proc. of National Conference on Recent Trends in Information Systems (ReTIS 06), pp. 37-40, July 2006, India.

7. **A. Roy**, T.K. Bhowmik, S.K. Parui and U. Roy, *A Novel Approach to Skew Detection and Character Segmentation for Handwritten Bangla Words*, Proc. of Digital Image Computing: Techniques and Applications (DICTA 2005), pp. 203-210, December 2005, Australia.

8. T.K. Bhowmik, **A. Roy** and U. Roy, *Character Segmentation for Handwritten Bangla words using Artificial Neural Network*, Proc of International Workshop on Neural Networks and Learning in Document Analysis and Recognition (NNLDAR), pp. 28-32, August 2005, Korea.

**Academic information**:

- Got my Master's degree in Computer Science from Visva-Bharati in 2005 with 82.92%. I took Image Processing as a special paper.
- Passed my B.Sc. in Computer Science in 2003 with 84.00% (Honours distinction) from Visva-Bharati. I have Mathematics and Statistics as pass subjects.
- Passed Pre-Degree with science subjects in 2000 from Visva-Bharati with 78.70%. I have Statistics as an additional subject.
- Got my School-Certificate from Visva-Bharati in 1998. I have got 81.50%.