




Kaushik Roy, Ph.D.


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Research Interest

Handwriting Analysis, Postal Automation, HOCR, OHR, NLP, Speech Analysis, Medical Signal Processing

Employment History


- 2015 –  **Professor**, West Bengal State University, Barasat (WBSUB), Kolkata-126.
- 2012 – 2015  **Associate Professor**, West Bengal State University, Barasat (WBSUB), Kolkata-126.
- 2009 – 2012  **Reader**, West Bengal State University, Barasat (WBSUB), Kolkata-126.
- 2006 – 2009  **Lecturer**, West Bengal University of Technology, BF 142, Sector –V Saltlake, Kolkata-64.
- 2006 – 2006  **Scientific Officer**, Centre for Development of Advanced Computing (CDAC), Kolkata.
- 2005 – 2006  **Asst. Professor**, Narula Institute of Technology, Kolkata.
- 2003 – 2005  **Project Linked Personnel**, Indian Statistical Institute (ISI) Kolkata.
- 2002 – 2003  **Lecturer**, University Institute of Technology, Burdwan University, Barddhaman.
- 1999 – 2000  **Software Engineer**, SCRIPTRON, Kolkata .

Education



- 2005 – 2008  **Ph.D., Engineering** from Jadavpur University. Thesis title: *On the Development of an Optical Character Recognition System for Indian Postal Automation.*
- 2000 – 2002  **M. E., in Computer Sc. and Engg.**, from Jadavpur University
- 1994 – 1998  **B. E., in Computer Sc. and Engg.**, from REC Silchar (Now NIT Silchar).

Miscellaneous Experience


Research Publications

-  Published 2 **books**, 1 **Patent**, 86 papers in International Journals (49 SCIE with cumulative impact factor of 155+) and 189 papers in various International & National conferences proceedings and book chapters with Citations 3823 h-index 33 & iio-index is 106 as per google scholar.

Awards and Achievements

- 2004  **Champion in National Competition for Young IT Professional Awards 2004-YITPA '04**, Computer Society of India.
-  **Regional Runners up (East) in National competition for Young IT Professional Awards 2004-YITPA (East) '04**, Computer Society of India.





Sponsored Project

- 2019 – 2022  **Development of Online Handwriting Recognition System in Indic script: A case study with Bangla.** Awarded by SERB, Govt. of India.

Miscellaneous Experience (continued)

2007 – 2009  **A System for Online Bangla Handwriting Recognition.** Awarded by AICTE.

Membership of Learned Societies and/or Professional Bodies

-  **Life member.** IUPRAI (Indian Unit for IAPR).
-  **Life member.** Computer Society India.
-  **Fellow.** IETE (The Institution of Electronics & Telecommunication Engineers).
-  **Life member.** MIDA.

PhD Supervision

- 2017  **Sk. Md. Obaidullah** - “An Approach for Script Identification from Official Indian Scripts”, Jadavpur University.
- 2018  **Chayan Halder**- “Writer Identification and Verification on Bangla Handwriting”, WBSU.
- 2019  **Shibprasad Sen**- “An integrated approach towards online Bangla handwriting recognition”, Jadavpur University.
- 2020  **Himadri Mukherjee**- “Analysis of audi signals for language identification”, WBSU.
 **Ankita Dhar**- “A sem-supervised domain based Bangla text categorization system”, WBSU.
- 2023  **Sahana Das**- “Development of a Neuro-Fuzzy Module for the Interpretation of Fetal Cardiotocograph”, WBSU.
- 2024  **Ramit Roy**- “Recognition of Handwritten Address Block for Indian Postal Automation”, WBSU.
 **Payel Rakshit**- “Development of Bangla Handwritten Text Recognition System”, WBSU, 2024
 **Jaya Paul** -”Development of a Writer Verification System - A Case Study on Bangla Scripts”, Jadavpur University.

Selected Articles

- 1 A. Laskar, M. Ghosh, M. O. Sk, T. Goncalves, C. Chakraborty, and K. Roy, “Lungconvt-net: A visual transformer network with blended features for pneumonia detection,” *Pattern Recognition*, p. 112 150,
- 2 S. Das, S. M. Obaidullah, M. Mahmud, *et al.*, “A machine learning pipeline to classify foetal heart rate deceleration with optimal feature set,” *Scientific Reports*, vol. 13, no. 1, p. 2495, 2023.
- 3 M. Ghosh, H. Mukherjee, S. M. Obaidullah, X.-Z. Gao, and K. Roy, “Scene text understanding: Recapitulating the past decade,” *Artificial Intelligence Review*, vol. 56, no. 12, pp. 15 301–15 373, 2023.
- 4 P. Rakshit, C. Halder, M. O. Sk, and K. Roy, “A generalized line segmentation method for multi-script handwritten text documents,” *Expert Systems with Applications*, vol. 212, p. 118 498, 2023.
- 5 T. Ghosh, S. Sen, S. M. Obaidullah, K. Santosh, K. Roy, and U. Pal, “Advances in online handwritten recognition in the last decades,” *Computer Science Review*, vol. 46, p. 100 515, 2022.
- 6 A. Dhar, H. Mukherjee, N. S. Dash, and K. Roy, “Text categorization: Past and present,” *Artificial Intelligence Review*, vol. 54, no. 4, pp. 3007–3054, 2021.
- 7 H. Mukherjee, S. Ghosh, A. Dhar, S. M. Obaidullah, K. Santosh, and K. Roy, “Deep neural network to detect covid-19: One architecture for both ct scans and chest x-rays,” *Applied Intelligence*, vol. 51, pp. 2777–2789, 2021.