

SAIKAT SARKAR

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CURRENT POSITION

Assistant Professor

Department of Computer Science

Bangabasi College, 19, Rajkumar Chakraborty Sarani, Kolkata-700009

November 2016 - Present

QUALIFICATIONS

Doctor of Philosophy (Ph.D.) in Information Technology

February 2024

Thesis title: Estimation of Ball Possession Statistics in Soccer Video

University of Calcutta, Kolkata, India

Master of Science (M.Sc.) in Computer Science

July 2011 - June 2013

Banaras Hindu University (BHU), Varanasi, India

SGPA: 8.77

Bachelor of Science (B.Sc.) in Computer Science

July 2008 - June 2011

Ramakrishna Mission Residential College, Narandrapur,
University of Calcutta, Kolkata, India

Overall Percentage: 75.87 %

ADDITIONAL QUALIFICATION

UGC NET Junior Research Fellowship (JRF), 2014

WORK EXPERIENCE

Associate, Cognizant Technology Solutions (CTS), India

August 2013 - July 2016

PUBLICATIONS (JOURNALS)

Saikat Sarkar, Spandan Basu, Angshuman Paul and D. P. Mukherjee, "ViViD: View Prediction of Online Video Through Deep Neural Network-Based Analysis of Subjective Video Attributes", **IEEE Transactions on Broadcasting**, vol. 69, p. 191–200, 2023.

Saikat Sarkar, D. P. Mukherjee and A. Chakrabarti, "Reinforcement Learning for Pass Detection and Generation of Possession Statistics in Soccer", **IEEE Transactions on Cognitive and Developmental Systems**, 2022.

Saikat Sarkar, D. P. Mukherjee and A. Chakrabarti, "From soccer video to ball possession statistics", **Pattern Recognition**, vol. 122, p. 108338, 2022.

T. N. Mishra, **Saikat Sarkar**, K. N. Rai, "Numerical solution of dual-phase-lagging heat conduction model for analyzing overshooting phenomenon", **Applied Mathematics and Computation**, **Elsevier**, pages 693-708, 2014

PUBLICATIONS (CONFERENCES)

S. Bose, **Saikat Sarkar**, and A. Chakrabarti, "SoccerKDNet: A Knowledge Distillation Framework for Action Recognition in Soccer Videos", in International Conference on Pattern Recognition and Machine Intelligence (**PReMI**), Springer, 2023.

Saikat Sarkar, D. P. Mukherjee and A. Chakrabarti, "Watch and Act: Dual Interacting Agents for Automatic Generation of Possession Statistics in Soccer", in Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**) Workshop CVSports, IEEE, 2022.

Saikat Sarkar, S. Ali and A. Chakrabarti, "Shot Classification and Replay Detection in Broadcast Soccer Video", in Advanced Computing and Systems for Security (**ACSS**), pages 57–66, Springer, 2020.

Saikat Sarkar, A. Chakrabarti and D. P. Mukherjee "Generation of Ball Possession Statistics in Soccer Using Minimum-Cost Flow Network", in Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**) Workshop CVSports, IEEE, 2019.

Saikat Sarkar, A. Chakrabarti and D. P. Mukherjee "Estimation of Ball Possession Statistics in Soccer Video", in Proceedings of the 11th Indian Conference on Computer Vision Graphics and Image Processing (**ICVGIP**), ACM, 2018.

TALKS

"**Sports Analytics**", at the 4th Winter School on Deep Learning, organized by ECSU, ISI Kolkata, 2025

"**Let's Recognize Objects in Images: From Theory to Practice**", at the 1st workshop on Deep Learning and its Applications, organized by School of Computer Engineering, Kalinga Institute of Industrial Technology (KIIT), 2022

"**An Introduction to Reinforcement Learning**", at the 1st Winter School on Deep Learning, organized by ECSU, ISI Kolkata, 2022

PROFESSIONAL SERVICES

Reviewer: Computer Vision and Image Understanding (CVIU) (Elsevier), SN Computer Science (Springer), Transactions on Multimedia (IEEE), Sadhana - Academy Proc. in Engineering Science (Springer)

RESEARCH INTERESTS

Computer Vision, Sports Analytics, Reinforcement Learning, Image Processing, Deep Learning, Large Language Models, Language with Vision

PROGRAMMING SKILLS

Python, Matlab, Tensorflow, Keras, PyTorch, OpenCV, LangChain, OpenAI API, Ultralytics, Streamlit, C#, C++, C, SharePoint2010