Subhra Swetanisha, Ph.D.

Designation : Associate Professor

Department : Department of Computer Science & Engineering

(JOINED THE INSTITUTE IN 2025)

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RESEARCH INTERESTS
- ✓ Remote Sensing
- ✓ Geographic Information System
- ✓ Machine Learning
- ✓ AI

Academic Qualifications

Ph.D. (CSE), KIIT Deemed to be University, Bhubaneswar, India

M.Tech. (CSE), KIIT University, Bhubaneswar, India

B.Tech. (CSE), Biju Patnaik University of Technology, India

Teaching Experience/Industrial Experience/Research Experience

- ✓ 19 Years

PUBLICATIONS

JOURNAL ARTICLES

[1]. Mohanty, V., Behera, D. K., Panda, A. R., & **Swetanisha, S**. Comparative analysis of machine learning and deep learning models for LULC classification using remote sensing data. Indian J. Sci. Technol, 18, 1397-1409, 2025.

[2]. Mohanty, V., Behera, D. K., Panda, A. R., & **Swetanisha. S**., Comparative Study of ARIMA and Deep Learning for NDVI Forecasting Using Landsat 8 Data. Indian Journal of Science and Technology, 18(11), 922-936, 2025.

[3]. S. Dash, D. K. Behera, **S. Swetanisha**, M. Das, "High Payload Image Steganography using DNN Classification and Adaptive Difference Expansion", Journal of Wireless Personal Communication, Springer, 2024(SCIE)

[4]. **S. Swetanisha**, Amiya Ranjan Panda, D. K. Behera, "Land Use/Land Cover Classification using Machine Learning Models", International Journal of Electrical and Computer Engineering(IJECE), Vol. 12, No. 2, pp. 2040~2046. 2022.

[5]. **S. Swetanisha** , Amiya Ranjan Panda, D. K. Behera, S. Dash, "Monitoring Land Use and Land Cover Change Using Ensemble Machine Learning Classifiers", Journal of Theoretical and Applied Information Technology, Vol. 100, Issue 18, 2022.

[6]. D. K. Behera, M. Das, **S. Swetanisha**, J. Nayak: "XGBoost Regression model Based Electricity Tariff Plan Recommendation in Smart Grid Environment", International Journal of Innovative Computing and Applications, Inderscience, Vol.13 No.2, pp.79 – 87, 2022.

[7]. D. K. Behera, M. Das, **S. Swetanisha**, P. K. Sethy: "Hybrid model for movie recommendation system using content K-nearest neighbors and restricted boltzmann machine" Indonesian Journal of Electrical Engineering and Computer Science, Vol. 23, No. 1, July 2021, pp. 445~452.

[8]. D. K. Behera, M. Das, **S. Swetanisha**, J. Nayak, S. Vimal, B. Naik: "Follower Link Prediction using the XGBoost Classification Model with Multiple Graph Features", Journal of Wireless Personal Communication, Springer, 2021. – (SCIE)

[9]. D. K. Behera, M. Das, S. Dash, **S. Swetanisha**: "Weighted Hybrid Model for Product Recommender System using RBM and Matrix Factorization", International Journal of Advanced Science and Technology, Vol. 29, Issue 4, pp. 4485-4493, 2020.

[10].   D. K. Behera, M. Das, **S. Swetanisha**: "A Research on Collaborative Filtering Based Movie Recommendations: From Neighborhood to Deep Learning Based System", International Journal of Recent Technology and Engineering, Vol. 8, Issue 4, pp. 10809-10814, 2019.

[11].   A. K. Samal, D. K. Behera, **S.Swetanisha**, J. Pramanik, S. K. Pani: "Opinion Mining – A Birds Eye View of Issues and Challenges", International Journal for Scientific Research & Development, Vol. 4, Issue 01, 2016.

[12].   A. K. Samal, D. K. Behera, **S.Swetanisha**, J. Pramanik, S. K. Pani: "Sentiment Analysis through Mining Unstructured Reviews - Issues and Challenges", International Journal of Advanced Research in Data Mining and Cloud Computing, Vol. 3, Issue 7, 2015.

CONFERENCE PAPERS

[1]. V. Mohanty, D. K. Behera, A. R. Panda and **S. Swetanisha**, "Performance Comparison of Machine Learning Classifiers for Change Detection on Satellite Data," 2024 6th International Conference on Computational Intelligence and Networks (CINE), Bhubaneswar, India, pp. 1-6,(IEEE),2024.

[2]. Mohanty, V., Panda, A.R., Behera, D.K., **Swetanisha, S**. (2025). Forecasting Urban Growth: Applying Prophet Model to Landsat NDBI Data for Sustainable City Development. In: Bhateja, V., Patel, P., Simic, M. (eds) Intelligent Data Engineering and Analytics. FICTA 2024. Smart Innovation, Systems and Technologies, vol 420,(Springer),2024.

[3]. R. K. Behera, D. K. Behera, **S. Swetanisha** and A. K. Jena, "Performance Analysis of Machine Learning Models for Liver Disease Patient Classification," 2024 International Conference on Intelligent Computing and Sustainable Innovations in Technology (IC-SIT), Bhubaneswar, India, 2024, pp. 1-5.(IEEE), 2024.

[4]. P Sahoo, DK Behera, **S Swetanisha**, JR Mohanty,"Software Development Effort Estimation using UML Activity models with Regression Analysis", 11th International Conference on Frontiers of Intelligent Computing: Theory and Applications, Springer, 2023.

[5]. S.K. Behera, J. Palei, D.K. Behera, **S. Swetanisha**, P.K. Sethy, "Machine Learning-Based Diabetes Prediction using Missing Value Impotency", Smart Innovation, Systems and Technologies, Vol. 271, pp. 575–584. Springer, 2022.

[6]. **S. Swetanisha**, A. R. Panda and D. K. Behera, "Change Detection using Machine Learning Models: A Case Study on the Puri District of Odisha, India," 2021 19th OITS International Conference on Information Technology (OCIT), pp. 100-104, IEEE, 2021.

[7]. D.K. Behera, M. Das, **S. Swetanisha**, "Predicting Users' Preferences for Movie Recommender System Using Restricted Boltzmann Machine", Advances in Intelligent Systems and Computing, Vol. 711, pp. 759–769, Springer, 2019.

[8]. D.K. Behera, M. Das, **S. Swetanisha**, B. Naik : "Collaborative Filtering Using Restricted Boltzmann Machine and Fuzzy C-means", Advances in Intelligent Systems and Computing, vol. 710, pp 723-731, Springer, 2018.

[9]. B. Naik, **S. Swetanisha**, D. K. Behera, S. Mahapatra, B. K. Padhi, "Cooperative Swarm Based Clustering Algorithm based on PSO and K-means to find op-timal cluster centroids", in Proceedings of the National Conference on Computing and Communication Systems (NCCCS), IEEE, 2012.

PATENTS

[1]. **Title:** Real Time Crop Recommendation Framework Based on Soil Quality and Environmental Condition Using Machine Learning
Application Number: 202231056814
Status : Published

[2]. **Title:** I-Vision-based human-robot interaction and navigation system
Application Number: 202331008501
Status: Published

FUNDED PROJECTS

[1]. Title: Collision Avoidance Self-Flying Drone
Sponsored by: DST, New Delhi under IEDC Scheme

[2]. Title: Recommender Portal using Big Data Analytics
Sponsored by: DST, New Delhi under IEDC Scheme

CERTIFICATION

[1]. **Certification on GIS Basics**
By: ESRI

[2]. **Certification on Arc GIS Pro Basics**
By: ESRI

[3]. **NPTEL Certification on Python for Data Science**
Funded by Ministry of HRD, Govt. of India
Category: Elite

[4]. **NPTEL Certification on Programming, Data Structures and Algorithms Using Pyton**
Funded by the MoE, Govt. of India
Category: Elite + Silver

[5]. **NPTEL Certification on Design and Analysis of Algorithm**
Funded by the MoE, Govt. of India
Category: Elite

[6]. **NPTEL Certification on Introduction to Machine Learning**
Funded by the MoE, Govt. of India

[7]. **NPTEL Certification on Machine Learning for Earth System Sciences**
Funded by the MoE, Govt. of India
Category: Elite

[8]. **NPTEL Certification on Remote Sensing and GIS for Rural Development**
Funded by the MoE, Govt. of India
Category: Elite+ Gold+ Topper 5%

AWARDS

[1]. Savitribai Phule Excellence Award-2022 for Best Innovator, NITI Aayog

[2]. Research Excellence Award-2023, Institute of Researchers, Registered with Ministry of MSME, Govt. of India.

[3]. Received the Global Teacher Award-2023 by AKS Education.

PROFESSIONAL SOCIETIES

Member of professional societies: IEEE, ISTE, IAENG, InRes and OITS

PROFESSIONAL TRAINING

[1]. Faculty Trainer of Intel AI training Program, October 2024.

[2]. "SAP S4HANA", By SAP University Alliances, January 15-19 2024.

[3]. "IoT for Agriculture and Environment", AICTE Training and Learning (ATAL) Academy Blended/Hybrid FDP from 2022-12-26-2022-12-31 to 2023-01-02-2023-01-06

[4]. "Hyperspectral And Microwave Remote Sensing Techniques for Geological Studies", Indian Space Research Organization (ISRO), Govt. of India, 2022

[5]. "Global Navigation Satellite Systems", AICTE Training and Learning (ATAL) Academy, 2021.

[6]. "Hands On Skills Using Remote Sensing and GIS", Sathyabama Institute of Science and Technology, Centre for Remote Sensing and Geoinformatics, 2020.

[7]. "IoT Instructor Training" (60 hours Conducted by RoboCraze, Bangalore in association with CISCO), 2017.