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Joined the Institute in January
2021

About

Hello, welcome to my home page. I am an Assistant Professor in the Department of Computer Science & Engineering at Indian Institute of Information Technology, Guwahati. I joined IIITG in January, 2021. Prior to that, I completed my PhD from National Institute of Technology Silchar in Computer Science & Engineering in the year 2020.

Research Interests

Machine Learning, Data Mining, Deep learning, Image processing.

Teaching

At IIITG, I have taught the following courses:

Human Computer Interaction (CS682)

Artificial Intelligence (CS631)

Deep Learning (CS471)

Machine Learning (CS306)

Publication

Conference

- 1. A. K. Dasari, S.K. Biswas, D.M. Thounaojam, D. Devi, B. Purkayastha, "Ensemble Learning Techniques and Their Applications: An Overview", International Conference on Communications and Cyber Physical Engineering, (2023), pages. 897-912, Springer Nature Singapore
- 2. D. Devi, S.K. Biswas, B. Purkayastha, "A Review on Solution to Class Imbalance Problem: Undersampling Approaches", ComPE-2020, (2020), NEHU, Shillong
- 3. D. Devi, S.K. Biswas, B. Purkayastha, "A Cost-sensitive weighted Random Forest Technique for Credit Card Fraud Detection", IEEE-ICCCNT 2019, (2019), IIT Kharagpur
- 4. D. Devi, S.K. Biswas, B. Purkayastha, "A Boosting based Adaptive Oversampling Technique for treatment of Class Imbalance", 8th IEEE International Conference on Computer Communications and Informatics, (2019), ICCCI'19

Journal

- 1. D. Devi, S.K. Biswas, B. Purkayastha, "Correlation-based Oversampling aided Cost Sensitive Ensemble learning technique for Treatment of Class Imbalance", Journal of Experimental & Theoretical Artificial Intelligence, vol. 34, (2021), pages. 143-174, Taylor and Francis
- 2. D. Devi, S. Namasudra, S. Kadry, "A Boosting-Aided Adaptive Cluster-Based Undersampling Approach for Treatment of Class Imbalance Problem", International Journal of Data Warehousing and Mining (IJDWM), vol. 16, (2020), pages. 60-86, IGI Global
- 3. D. Devi, S.K. Biswas, B. Purkayastha, "Learning in presence of class imbalance and class overlapping by using one-class SVM and undersampling technique", Connection Science, vol. 31, (2019), pages. 105-142, Taylor and Francis
- 4. S. Kumar, S.K. Biswas, D. Devi, "TLUSBoost algorithm: A boosting solution for class imbalance problem", Soft Computing, vol. 23, (2019), pages. 0755-10767, Springer
- 5. D. Devi, S.K. Biswas, B. Purkayastha, "Redundancy-driven modified Tomek-link based Undersampling: A Solution to Class Imbalance", Pattern Recognition Letter, vol. 93, (2017), pages. 3-12, Elsevier
- 6. S.K. Biswas, D. Devi, M. Chakraborty, "A Hybrid Case-based Reasoning Model for Classification in Internet of Things (IoT) Environment", Journal of Organizational and End-User Computing, vol. 30, (2017), pages. 104-122, IGI Global
- 7. S. K. Biswas, M. Chakraborty, H. R. Singh, D. Devi, B. Purkayastha, A.K. Das, "Hybrid case-based reasoning system by cost-sensitive neural network for classification", Soft Computing, vol. 21, (2017), pages. 7579-7596, Springer



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