Dr. Abhilasha Chaudhuri Profile for Website

Dr. Abhilasha Chaudhuri
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Abhilasha Chaudhuri is currently working as Assistant professor in the department of CSE, SVNIT, Surat. She received Ph.D. degree from National Institute of Technology, Raipur, India in 2022, M. Tech. degree from ABV-IIITM, Gwalior, India in 2008 where she received a gold medal for her performance. During her Ph. D she has published a very good number of high-quality research articles in various reputed journals and conferences including 5 SCI papers in Q1 ranked high impact factor journals like Expert Systems With Applications, Knowledge Based Systems and Ambient Intelligence and Humanized Computing. Currently, she is working as assistant professor in CSE department in OP Jindal University Raigarh, Chhattisgarh, India. Previously, she worked as SME at AMDOCS Pune for 2 years later she joined Rungta Engineering College, Raipur as Assistant Professor. Her research interest includes pattern recognition, feature engineering, bioinformatics and optimization techniques.

Academic Profile:

- PhD from National Institute of Technology Raipur in 2022
  Thesis title: Towards the Design and Development of Meta-heuristic Feature Selection Techniques for Classification of High Dimensional Data
- M. Tech in Software Engineering from ABV-Indian Institute of Information Technology Gwalior in 2008
- B.E. in Computer Science and Engineering from Pt. Ravi Shankar Shukla University Raipur in 2005

Work Experience:

- Currently working as Assistant professor in the Department of Computer Science and Engineering, SVNIT, Surat
- Worked as Assistant Professor in O. P. Jindal University Raigarh from March 2022 to September 2023
- Worked as Assistant Professor in Rungta Engineering College Raipur from February 2014 to August 2018
- Worked as Assistant Professor in Kirodimal Institute of Technology Raigarh from October 2009 to April 2012
- Worked as Subject Matter Expert at AMDOCS DVCI Pune from June 2008 to October 2009
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Area of Research:
Machine Learning
Feature Engineering
Dimensionality Reduction
Meta-heuristic Optimization
Classification of High-dimensional datasets

Publications:

SCI/ Scopus Journal Publications:
1. Chaudhuri, Abhilasha, and Tirath Prasad Sahu. "Multi-Objective Feature Selection based on Quasi-Oppositional based Jaya Algorithm for Microarray Data." *Knowledge-Based Systems* 236, (2021): 107804. https://doi.org/10.1016/j.knosys.2021.107804
   SCI, IF – 8.038, Q1
2. Chaudhuri, Abhilasha, and Tirath Prasad Sahu. "Feature selection using Binary Crow Search Algorithm with time varying flight length." *Expert Systems with Applications* 168 (2021): 114288. https://doi.org/10.1016/j.eswa.2020.114288
   SCIE, IF – 6.954, Q1
3. Chaudhuri, Abhilasha, and Tirath Prasad Sahu. "Binary Jaya algorithm based on binary similarity measure for feature selection." *Journal of Ambient Intelligence and Humanized Computing* (2021): 1-18.
   https://doi.org/10.1007/s12652-021-03226-5
   SCIE, IF – 7.104, Q1
4. Chaudhuri, Abhilasha, and Tirath Prasad Sahu. "A hybrid feature selection method based on Binary Jaya algorithm for micro-array data classification." *Computers & Electrical Engineering* 90 (2021): 106963. **SCIE, IF – 3.818, Q1**
   https://doi.org/10.1016/j.compeleceng.2020.106963
5. Chaudhuri, A., and T. P. Sahu. "PROMETHEE-based hybrid feature selection technique for high-dimensional biomedical data: application to Parkinson's disease classification." *Electronics Letters* 56.25 (2020): 1403-1406.
   SCIE, IF – 1.316
   https://doi.org/10.1049/el.2020.2517
6. Chaudhuri, Abhilasha, and Tirath Prasad Sahu. "Feature weighting for naïve Bayes using multi objective artificial bee colony algorithm." *International Journal of Computational Science and Engineering* 24.1 (2021): 74-88.

Book Chapters:
7. Chaudhuri, Abhilasha, and Tirath Prasad Sahu. "A Case Study on Disease Diagnosis Using Gene Expression Data Classification with Feature Selection: Application of Data Science Techniques in Health Care." *Data Science and Its Applications*. and Chapman Hall/CRC, 2021. 239-254.
eBook ISBN: 9781003102380, https://doi.org/10.1201/9781003102380
8. Chaudhuri, Abhilasha, and Tirath Prasad Sahu. "Computational Intelligence for Healthcare." In Next Generation Healthcare Systems Using Soft Computing Techniques. Chapman and Hall/CRC.
eBook ISBN9781003217, https://doi.org/10.1201/9781003217091091

Conferences:
9. Chaudhuri, A., Sahu, T.P. (2022). Feature Selection Technique for Microarray Data Using Multi-objective Jaya Algorithm Based on Chaos Theory. In: Chen, J.IZ., Wang, H., Du, KL., Suma, V. (eds) Machine Learning and Autonomous Systems. Smart Innovation, Systems and Technologies, vol 269. Springer, Singapore. https://doi.org/10.1007/978-981-16-7996-4_28

10. Chaudhuri Abhilasha. "Binary Jaya Algorithm based on Dice Similarity for Cancer Classification using Microarray Dataset" *2022 IEEE World Conference on Applied Intelligence and Computing (AIC 2022)*. https://doi.org/10.1109/AIC55036.2022.9848843

11. Chaudhuri, A., Chaudhuri, A. K., & Malani, S. (2023, February). A Decision-making Framework Model for Replacement of Track Switch-point Changing Box using a Multiple Attribute Decision Making Method. In 2022 OPJU International Technology Conference on Emerging Technologies for Sustainable Development (OTCON) (pp. 1-6). IEEE.

    https://doi.org/10.1109/OTCON56053.2023.10114035

12. A. Chaudhuri and S. Mohdiwale, "An Effective Feature Selection Technique for Detecting Parkinson's Disease Using Binary Whale Optimization Algorithm," 2023 IEEE World Conference on Applied Intelligence and Computing (AIC), Sonbhadra, India, 2023, pp. 58-62, doi: 10.1109/AIC57670.2023.10263842.

    https://doi.org/10.1109/AIC57670.2023.10263842

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