Dr. Rajesh Ranjan

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Professional Summary

Dr. Rajesh Ranjan is an Assistant Professor in the Department of Computer Science and Engineering at South Asian University (SAU), New Delhi. Before joining SAU, he served at The LNM Institute of Information Technology (LNMIIT), Jaipur, and has over eight years of academic and research experience. He holds a Ph.D. in Computer Science and Engineering from NIT Kurukshetra, an Integrated B.Tech–M.Tech degree from ABV-IIITM Gwalior, and a Post Graduate Diploma in Big Data Analytics from C-DAC Pune. His research explores areas such as unsupervised learning, nature-inspired and metaheuristic optimization, data analytics, as well as biometric systems, with a focus on developing scalable and interpretable computational models that advance data-driven intelligence. He has published several papers in reputed SCIE and Scopus-indexed journals, contributed to projects in multimodal biometrics and multilingual speech processing, and serves as a reviewer for multiple international peer-reviewed journals.

Research Areas

Unsupervised Machine Learning
Metaheuristic and Nature-Inspired Optimization
Data Analytics and Engineering
Biometric Systems and Pattern Recognition
Scalable and Interpretable Data-Driven Intelligence

Academic Qualifications

Degree	Institution	Duration / Year
Ph.D. (CSE)	NIT Kurukshetra	2019 – 2024
PG-DBDA	C-DAC Pune	2018-2019
Integrated B.Tech (IT) + M.Tech (IT)	ABV-IIITM Gwalior	5-Year Integrated Dual Degree Program (2006-2011)

Professional Experience (8.5 Years)

Designation	Institution	Duration
Assistant Professor	South Asian University (SAU), New Delhi	Oct 2025 – Present
Assistant Professor	The LNM Institute of Information Technology (LNMIIT), Jaipur	July 2024 – Oct 2025
Assistant Professor	The ICFAI University, Jaipur	July 2014 – Aug 2018
Assistant Professor	Sharda University, Greater Noida	July 2011 – Jan 2014

Teaching Interests:

Design and Analysis of Algorithms, Data Structures, Soft Computing, Database Systems, Big Data Analytics, and Machine Learning.

Publications

Recent Journal Publications

1. Ranjan, R., & Chhabra, J.K. (2023). Automatic clustering and feature selection using multi-objective crow search algorithm. Applied Soft Computing, 142, 110305. (SCIE, ScienceDirect)
2. Ranjan, R., & Chhabra, J.K. An Effective Crow Search Algorithm and its Application in Data Clustering. Journal of Classification. (SCIE, Springer)
3. Ranjan, R., & Chhabra, J.K. MBO: A Novel Memory Based Optimizer for Continuous and Discrete Optimization Problems. Journal of Scientific & Industrial Research (JSIR). (SCIE, NIScPR)
4. Ranjan, R., & Chhabra, J.K. (2024). A Hybrid Feature Selection Approach on Medical Dataset. IETE Journal of Research. (SCIE, Taylor & Francis)
5. Ranjan, R., & Chhabra, J.K. (2023). Automatic Feature Selection using Enhanced Dynamic Crow Search Algorithm. International Journal of Information Technology, 15(5), 2777–2782. (Scopus, Springer)
6. Ranjan, R., & Chhabra, J.K. (2023). A Modified Binary Arithmetic Optimization Algorithm for Feature Selection. WSEAS Transactions on Computer Research, 11, 199–205. (Scopus)
7. Ranjan, R., & Chhabra, J.K. (2022). Automatic Data Clustering using Dynamic Crow Search Algorithm. EAI Endorsed Transactions on Context-aware Systems and Applications, 8(1), e5.

8. Singh, M., Ranjan, R., & Chhabra, J.K. (2023). A Modified Binary Jaya Optimization Algorithm and its Application in Feature Selection. International Journal of Innovation in Multidisciplinary Scientific Research.

Conference Publications

1. Ranjan, R., Singh, S.K., Shukla, A., & Tiwari, R. (2010). Text-dependent Multilingual Speaker Identification for Indian Languages using ANN. In IEEE ICETET 2010, pp. 632–635.
2. Kumar, R., Ranjan, R., Singh, S.K., Kala, R., Shukla, A., & Tiwari, R. (2009). Multilingual Speaker Recognition using Neural Network. Proceedings of the Frontiers of Research on Speech and Music (FRSM), 1–8.

Technical Proficiency

Programming Languages: Python (Pandas, NumPy, Scikit-Learn), C, Core Java, Scala
Big Data Frameworks: Apache Hadoop (Hive, Pig, HBase, Zookeeper), Apache Spark (Structured Streaming, MLlib), Apache Kafka
Databases: MySQL, MongoDB, Apache HBase
Visualization & Analytics: Tableau, Microsoft Excel
Operating Systems & Tools: Windows, Linux (Ubuntu), Anaconda, Spyder, Eclipse, Dev-C++, MATLAB

Workshops & Academic Engagements

• **Workshop Attended:** Outcome-based Education & Accreditation (MNIT Jaipur & LNMIIT Jaipur, March 2025)
• **Workshop Conducted:** National Workshop on Android Application Development (ICFAI Tech School, March 2018)
• **Organizer** – Spoken Tutorial (MHRD), Member – Core Technical Club (ICFAI University)

Details:

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