CURRICULUM VITAE

Dr. MANISH KUMAR SINGH
Assistant Professor
Department of Computer Science
Shyama Prasad Mukherji College for Women (University of Delhi)

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Career Objective

To be an intrinsic part of the team in the esteemed institution, where my knowledge & endeavor can play an invaluable role towards its growth, and secure a position of honor & excellence within a stable environment that will lead to a lasting relationship in the field of academics.

Educational Qualifications

Course	Year of Passing	Institution	Board/University	Division
Ph.D.	2024	Dept. of Computer Science (School of Engineering, Science & Technology, SEST)	Jamia Hamdard University	N/A
MCA	2013	PDM College of Engineering	Maharishi Dayanand University	First Division
B.Sc. Apld. Phy. Computer Science	2010	Rajdhani College	University of Delhi	First Division
12th	2007	Kendriya Vidyalaya	CBSE	First Division
10th	2005	Adarsh Model Sec. School	CBSE	First Division

Academic Achievements:

- Qualified twice for the UGC-NET (National Eligibility Test) in Computer Science and Applications for Lectureship in July 2016 as well as in December 2018.
- Qualified GATE (General Aptitude Test in Engineering) in Computer Science and Information Technology.

Title of the Ph.D.	Developing Prediction Models for Fake News Detection on Social Media Platforms in Indian Context
Salient features of Ph.D. (in 100 words)	This Ph.D. work focused on the development of novel prediction models using artificial intelligence-based techniques to effectively identify social media-related false news within the unique landscape of India. To further contribute to fake news research in the Indian context for training & testing AI models, a dataset called BharatFakeNewsKosh* was carefully curated with a sample size of 26,232 news items (13,721 legitimate news items and 12,511 fraudulent news items, categorized into 60 groups and characterized by 19 characteristics in 9 Indian languages) to represent various topics and user demographics, enabling a comprehensive analysis of fake news dissemination patterns. *www.kaggle.com/datasets/man2191989/bharatfakenewskosh
Date of Award	11th March 2024

Work Experience (Academics: 8 years, Industry: 4 years)

Shyama Prasad Mukherji College for Women   **University of Delhi**
Assistant Professor   *August 5, 2019   -   Present*

Keshav Mahavidyalaya   **University of Delhi**
Assistant Professor   *July 27, 2017   -   May 25, 2019*

Deen Dayal Upadhyaya College   **University of Delhi**
Guest Faculty   *Jan 2019   -   April 2019*

Ramanujan College   **University of Delhi**
Guest Faculty   *July 2017   -   Nov 2017, Jan 2018 - April 2018*

Baluja Institute of Technology & Management   **Delhi**
Faculty in Computer Science & IT   *July 2014   -   May 2016*

Broadvision Technologies   **Delhi**
IT Trainer   *June 2013 - June 2014*

Projects

1. **College Office Automation Portal with App (2024)**
   Mentored the development of an office automation portal with a mobile app for the college. It used PHP as the portal technology and Flutter as the app technology. Both front-end and back-end support.
2. **FaceNet – A Face Detection Software using TensorFlow (2021)**
   Created "FaceNet," a face detection software utilizing TensorFlow to enhance security applications and user verification systems.
3. **DeceiveNet – A Parsevial Network Project using GAN technology (2020)**
   Developed "DeceiveNet," a project employing Generative Adversarial Networks (GANs) for various applications, including synthetic data generation and adversarial attacks.

4. **SoftP – A P4 Language Project for Software Defined Networking (2019)**
   Implemented "SoftP," a project using the P4 programming language to enhance the flexibility and control in Software Defined Networking (SDN) environments.
5. **Attendance Portal using PHP technology (2017)**
   Developed an attendance management portal using PHP, enabling efficient attendance tracking and reporting for educational institutions.
6. **An e-Commerce site using Joomla (2016)**
   Built an e-commerce website utilizing Joomla, featuring product management, secure payment gateways, and customer relationship management functionalities.

Publications

Journal Papers:

1. **A Novel Ensemble Model BharatAuthenticNet for Detecting Fake News: Experimentation and Performance Analysis**
   This paper presents the BharatAuthenticNet (BAN) model, developed using an ensemble learning-based approach that effectively operates on a multi-feature, multi-domain, and multilingual dataset. This work is the first of its kind to provide a detailed experimental analysis of a proposed model in the field of fake news detection. BAN achieves superior accuracy, precision, recall, and F1 score of 0.9341, 0.9619, 0.9889, and 0.9421, respectively, surpassing baseline algorithms and state-of-the-art techniques. This machine learning-based research specifically contributes to the integrity of social media platforms by mitigating the harmful effects of misinformation.

   Authors: Manish Kumar Singh, J. Ahmed, K.K. Raghuvanshi, M.A. Alam.
   Journal: Arabian Journal for Science and Engineering, 2025. **(SCIE + Scopus)** Link

2. **IndDeepFake: Mitigating the Spread of Misinformation in India through a Multimodal Adversarial Network**
   This paper introduces "IndDeepFake," a multimodal adversarial network designed to curb the spread of misinformation in India. It discusses the network's architecture, methodology, and its effectiveness in real-world scenarios.
   Authors: Manish Kumar Singh, J. Ahmed, K.K. Raghuvanshi, M.A. Alam.
   Journal: International Journal of Intelligent Systems and Applications in Engineering, 2024. **(Scopus)** Link

3. **A Comprehensive Review on Automatic Detection of Fake News on Social Media**
   The paper provides an extensive review of the current methods used for automatic detection of fake news on social media platforms, highlighting the strengths and limitations of various approaches.
   Authors: Manish Kumar Singh, J. Ahmed, M.A. Alam.
   Journal: Multimedia Tools and Applications, 2023 **(SCIE + Scopus)** Link

4. **BharatFakeNewsTracker: An Ensemble Learning Tool to Spot Fake News in India**
   This research presents "BharatFakeNewsTracker," an innovative ensemble learning tool developed for detecting fake news in the Indian context, focusing on regional languages and

cultural nuances.
Authors: Manish Kumar Singh, J. Ahmed, K.K. Raghuvanshi, M.A. Alam.
Journal: International Journal of Engineering Trends and Technology. 2023 **(Scopus)** Link

5. **Research Aspects of the Recommender System**
Explores research aspects and design approaches for developing effective recommender systems..
Authors: Manish Kumar Singh, Dinesh Prasad Sahu.
Journal: IJRASET, November 2017 **(UGC Approved Journal)**. Link

6. **Understanding the Convolutional Neural Network & Its Research Aspects in Deep Learning**
A detailed exploration of the convolutional neural network (CNN), its architecture, and research opportunities within the realm of deep learning.
Authors: Manish Kumar Singh, G.S. Baluja, Dinesh Prasad Sahu.
Journal: IJRASET, June 2017 **(UGC Approved Journal)**. Link

7. **Analysing Deep Learning as a Machine Learning Algorithm**
This paper analyzes the fundamental principles of deep learning and its applications across various domains, providing a comparative study with traditional machine learning algorithms.
Authors: Manish Kumar Singh, G.S. Baluja, Dinesh Prasad Sahu.
Journal: IJRASET, June 2017 **(UGC Approved Journal)**. Link

8. **Understanding the Fundamentals of Machine Learning Field, Its Evolution, and Its Needs**
This publication reviews the evolution of machine learning, its core concepts, and the pressing needs for research in this field.
Authors: Manish Kumar Singh, G.S. Baluja, D.P. Sahu.
Journal: IJRASET, June 2017 **(UGC Approved Journal)**. Link

9. **Analysing Machine Learning Algorithms & their Areas of Application**
This paper categorizes various machine learning algorithms and outlines their applications across multiple domains, highlighting their unique advantages.
Authors: Manish Kumar Singh, G.S. Baluja, D.P. Sahu.
Journal: IJRASET, June 2017 **(UGC Approved Journal)**. Link

10. **Big Data Analytics through Crowdsourcing**
Discusses the use of crowdsourcing in big data analytics, detailing methodologies and case studies where crowdsourced data has enhanced data-driven decision-making.
Authors: Manish Kumar Singh, G.S. Baluja, D.P. Sahu.
Journal: IJACT Compusoft, May 2017. **(SCOPUS)** Link

11. **Conceptualizing Big Data Analytics through Hadoop**
This paper explores Hadoop's role in big data analytics, discussing its architecture, data processing capabilities, and applications in various sectors.
Authors: Manish Kumar Singh, G.S. Baluja, D.P. Sahu.

Journal: IJACT Compusoft, May 2017 **(SCOPUS)**. Link

12. **Analyzing Net Neutrality with Indian Netizens' Perspective**
An investigation into the concept of net neutrality, focusing on the perspectives of Indian internet users and its implications for future internet policy.
Authors: Manish Kumar Singh, G.S. Baluja, D.P. Sahu.
Journal: IJACT Compusoft, August 2016 **(SCOPUS)**. Link

13. **Understanding How Crucial Hidden Value Discovery in Data Warehouse Is?**
This study focuses on the importance of discovering hidden values in data warehouses, discussing methods and algorithms for efficient data mining.
Authors: Anshika Goel, Manish Kumar Singh.
Journal: IJRASET, May 2014 **(UGC Approved Journal)**. Link

14. **Web Mining: Penning an Era of Information Age**
This paper examines the impact of web mining on data collection and analysis, and how it is shaping the future of information retrieval.
Authors: Anshika Goel, Dinesh Sahu, Manish Kumar Singh.
Journal: IJACT Compusoft, April 2014 **(SCOPUS)**. Link

Books

1. **Operating System – Concept Building and Problem-Solving Approach**
A comprehensive textbook that covers the essential concepts of operating systems, such as process management, memory management, file systems, and security. The book offers a problem-solving approach, making it ideal for students and professionals aiming to understand and apply OS concepts in real-world scenarios.
Authors: Manish Kumar Singh, Sachin Kumar, Saibal Pal.
Publisher: Cengage Publications, 2022.
ISBN: 978-9355733542. Link

2. **PHP Programming**
This book provides a comprehensive guide to PHP programming, covering fundamental concepts, advanced topics, and practical applications. It serves as a valuable resource for students, developers, and professionals looking to enhance their skills in server-side scripting and dynamic web development.
Authors: Manish Kumar Singh, K.K. Raghuvanshi, S. Gautam.
Publisher: NK Publications, 2023.
ISBN: 978-93-5736-010-4.

3. **Web Designing – Concept Building Approach**
This book focuses on the foundational principles of web designing, providing a step-by-step guide to building visually appealing and functional websites. It emphasizes concepts such as HTML, CSS, JavaScript, and responsive design techniques to empower beginners and seasoned designers alike.
Authors: Manish Kumar Singh, K.K. Raghuvanshi, A. Aggarwal.

Publisher: RP Unified Publications, 2023.
ISBN: 978-93-95447-24-9.

4. **Apache Spark: A Revision Guide with Special Reference to Spark 4.0**
This comprehensive guide is the definitive resource for mastering Apache Spark 4.0, catering to both beginners and enterprise architects. Covering essential topics like data governance, AI, and ML use cases, the book delivers practical, actionable insights with measurable business value across diverse industries. Bridging the gap between theory and real-world implementation, it offers foundational knowledge alongside scalable enterprise solutions, with each chapter highlighting quantified performance gains and ROI. Designed for Data Engineers, Architects, Performance Engineers, Software Architects, Business Leaders, and Students, it serves as an ideal reference for mastering Spark 4.0 at scale and excelling in technical interviews.
Authors: Pankaj Singh, Manish Kumar Singh.
Publisher: Kindle Edition, 2025.
ASIN (in place of ISBN for Kindle edition): B0FHDQG2SS. Link

Chapters in Edited Books:

1. **Role of IoT in Smart Security Systems**
This chapter provides insights into smart technologies aimed at energy and environmental management, presenting various strategies and tools used for sustainable development.
Authors: Manish Kumar Singh, Amit Jain, and Suruchi Gautam.
Book Title: Robust Biometric Systems and Efficient Data Preservation
e-book ISBN: 9781032874524
Publisher: CRC Press, Taylor & Francis Group, LLC, 2025.

2. **Fake News Detection on Social Media Through Machine Learning Techniques**
This chapter, published in "Proceedings of the International Conference on Advanced Communications and Machine Intelligence (MICA 2022)," explores various machine learning techniques for detecting fake news on social media. It presents an overview of the challenges and methodologies for improving detection accuracy.
Authors: Manish Kumar Singh, J. Ahmed, K.K. Raghuvanshi, M. Afshar Alam.
Book Title: Proceedings of International Conference on Advanced Communications and Machine Intelligence
e-book ISBN: 978-981-99-2768-5
Publisher: Springer, Singapore, 2023. Link

3. **BharatFakeNewsKosh: A Data Repository for Fake News Research in India**
This chapter discusses the creation of "BharatFakeNewsKosh," a comprehensive data repository designed to aid in fake news research in India. It covers data collection strategies, dataset structure, and potential applications.
Authors: Manish Kumar Singh, J. Ahmed, K.K. Raghuvanshi, M.A. Alam.
Book Title: Smart Trends in Computing and Communications
e-book ISBN: 978-981-99-0838-7
Publisher: Springer, Singapore, 2023. Link

4. **Defining and Visualizing Energy and Environment Related Smart Technologies**
This chapter provides insights into smart technologies aimed at energy and environmental management, presenting various strategies and tools used for sustainable development.
Authors: Manish Kumar Singh, K.K. Raghuvanshi.

Induction Programme, FDP, Workshop/Seminar

Induction/Orientation Programme   **Ramanujan College, University of Delhi**
Faculty in Universities/Colleges/Institutes of Higher Education   *April 20, 2022 to May 19, 2022*

Refresher Course   **Ramanujan College, University of Delhi**
Advanced Research Methodology   *Mar 23, 2022 to April 5, 2022*

Faculty Development Program   **IITM, IP University**
Emergence of Blockchain Technology and Cryptocurrencies   *Aug 9, 2021 to August 14, 2021*

National Faculty Development Program   **SGTB Khalsa College, University of Delhi**
Qualitative Research & Issues in Plagiarism   *Aug 5, 2021 to Aug 11, 2021*

Machine Learning with Python: A Practical Training   **St. Joseph's Institute of Technology, Chennai**
Department of Computer Science and Engineering   *Aug 5, 2021*

Managing References Made Easy using Mendeley   **Miranda House, University of Delhi**
Department of Computer Science   *July 27, 2021*

Faculty Development Program   **Hansraj College, University of Delhi**
Roadmap for Building New India with New Education Policy   *July 21, 2021 to July 25, 2021*

Faculty Development Program   **Finland Labs (A Unit of Revert Technology Pvt. Ltd.)**
Artificial Intelligence & Machine Learning using Python   *June 28, 2021 to July 9, 2021*

12 Weeks MOOC Faculty Development Program   **NPTEL, IIT-Madras**
Introduction to Machine Learning   *Jan 2021 to April, 2021*

Administrative Responsibilities

- **Nodal Officer & Convenor, UDGAM Incubation Center** at Shyama Prasad Mukherji College for Women, University of Delhi, from 5 September 2024 till date.
- **Vice President, IIC (Institution's Innovation Council)** at Shyama Prasad Mukherji College for Women, University of Delhi, from 10 October 2024 till date.
- Member, Admission Committee, Shyama Prasad Mukherji College for Women (University of Delhi), for two consecutive academic sessions - 2021-2022 and 2022-2023
- Website Coordinator, Journal of Applied Research in Humanities, Language and Social Sciences (ISSN:2583-2999), Shyama Prasad Mukherji College for Women (University of Delhi).
- Member, Website Committee, Shyama Prasad Mukherji College for Women (University of Delhi), for two consecutive academic sessions - 2020-2021 and 2021-2022
- Member, Annual Day Committee, Shyama Prasad Mukherji College for Women (University of Delhi), 2022-23.
- Member, Proctorial Committee, Keshav Mahavidyalaya (University of Delhi), April 2018 to May 2019.
- Member, Editorial Board, e-Blitzine, Departmental Annual Magazine, Dept. of Computer Science, Keshav Mahavidyalaya, Issue-3, 2019.

Events Organization: Conferences/Workshops/Seminars

- Convenor, National Workshop on Web Blog, "Remembering Unforgotten Indian Women Freedom Fighters Through Blog Writing", Department of Computer Science, Shyama Prasad Mukherji College for Women (University of Delhi). 02/04/2022.
- Technical Coordinator, Two-Day National Seminar, "Sanskrit Vangmay Mein Nadiyan: Sanskritik evam Bhuagoulik Paripekshya", Department of Sanskrit and IQAC, Shyama Prasad Mukherji College (University of Delhi), 17th Dec – 18th Dec, 2021.
- Technical Coordinator, National Webinar, "New Education Policy 2020: Impact on Higher Education", IQAC and NIRF, Shyama Prasad Mukherji College (University of Delhi), 27/11/2021.
- Convenor, International E-Conclave, "Cloud Computing: The next level of Digital Transformation", Department of Computer Science, Shyama Prasad Mukherji College for Women (University of Delhi). 20/11/2021.
- Faculty Coordinator and Member (Organizing Committee), National Webinar, "Latest Trends in Information Technology Industry", Department of Computer Science, Shyama Prasad Mukherji College for Women (University of Delhi), 7th November, 2020.
- Member of the Organizing Committee, National Webinar on "Role of Fats and Oils in a Healthy Diet", Department of Food Technology, Shyama Prasad Mukherji College for Women (University of Delhi), 23rd October, 2020.
- Member, Website Committee, Shyama Prasad Mukherji College for Women (University of Delhi), August 2019-2020.
- Resource person and coordinator, six-month workshop, "Website Development & Digital Marketing", Department of Computer Science, Shyama Prasad Mukherji College (University of Delhi), 21st September, 2019 to 25th February, 2020.
- Faculty coordinator, three-months "Digital Literacy Program", Department of Computer Science, Shyama Prasad Mukherji College (University of Delhi), 8th August, 2019 to 9th November, 2019
- Member of the organizing committee for a full-day workshop, "Internet of Things (IoT)," Dept. of Computer Science, Keshav Mahavidyalaya, 16/01/2019.
- Member of the organizing committee for a full-day workshop, "Big Data & Hadoop," Dept. of Computer Science, Keshav Mahavidyalaya, 22/02/2018.
- Member of the organizing committee for a full-day workshop, "Cyber Security in Digital India," Dept. of Computer Science, Keshav Mahavidyalaya on 6/11/2017.

References

Prof. Amit Jain
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Phone No.: 7982615859

Dr. Kamlesh Kr. Raghuvanshi
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Date: 21/05/2025
Place: New Delhi

Signature
Dr. Manish Kumar Singh