CURRICULUM VITAE
Dr. (Mrs.) Simpel Rani

Designation	Professor (CSE)
Department	Yadavindra Department of Engineering,
	Punjabi University Guru Kashi Campus,
	Talwandi Sabo, Punjab.
Mobile No.	9779705188
E-mail	simpel_jindal@rediffmail.com
Academic Qualifications	B. Tech., M. Tech., Ph.D.
Teaching Experience	20+ experience of teaching courses in both undergraduate and postgraduate levels.
No. of Ph.D's Supervised	1
No. of Ph. D. supervision ongoing	3
No. of M. Tech. thesis Supervised	31
SCI Indexed Journal Publications:	10
Other Journal Publications:	26
International Conferences Publications	15
National Conferences Publication	7

Major Publications:

1. Rupinder Pal Kaur, M. K. Jindal, Munish Kumar, **Simpel Rani Jindal** & Shikha Tuteja, "LineSeg: line segmentation of scanned newspaper documents", Pattern Analysis and Applications, Published: 11 October 2021, Impact Factor 2.580 (2020), SCI Indexed, UGC Care India

2. Munish Kumar, M. K. Jindal, R. K. Sharma, **Simpel Rani Jindal** & Harjeet Singh, "Improved recognition results of offline handwritten Gurumukhi characters using hybrid features and adaptive boosting", Soft Computing (2021), Article No 11, Published online on 25.7.2021. ISSN No. 1432-7643, SCI Indexed Journal, Impact factor 3.643

3. Neetika Bansal, Vishal Goyal and **Simpel Rani**, "Word Level Language Identification of English-Punjabi Code-Mixed Social Media Text", Research Cell: an International Journal of Engineering Sciences, Vol. 33, No.6, pp. 24-32, June 2020. (ISSN: 2229-6913 (Print), ISSN: 2320-0332 (Online)

4. Munish Kumar and **Simpel Rani Jindal**, "A Study on Recognition of Pre-segmented Handwritten Multi-lingual Characters", Archives of Computational Methods in Engineering, (SCI Indexed Journal), pp 577-589, Vol. 27, No. 2, April 2020. (Impact Factor 6.73). ISSN: 1134-3060 (Print) 1886-1784 (Online) UGC-CARE List (India) UGC-CARE List Group II Journals indexed in globally recognised databases.

5. Munish Kumar, M. K. Jindal, R. K. Sharma and **Simpel Rani Jindal**, "Performance evaluation of classifiers for the recognition of offline handwritten Gurmukhi characters and numerals: a study", Artificial Intelligence Review, (SCI Indexed Journal), pp. 2075-2097, March 2020. (Impact Factor 5.095). ISSN: 0269-2821 (Print) 1573-7462 (Online). UGC-CARE List (India) UGC-CARE List Group II Journals indexed in globally recognised databases

6. Neetika Bansal, Vishal Goyal and **Simpel Rani**, "Experimenting Language Identification for Sentiment Analysis of English Punjabi Code Mixed Social Media Text", International Journal of E-Adoption, Vol. 12, No. 1, pp. 52-62, January 2020. UGC-CARE List (India) ISSN: 1937-9633|EISSN: 1937-9641

7. Munish Kumar, M. K. Jindal, R. K. Sharma and **Simpel Rani Jindal**, "Character and numeral recognition for non-Indic and Indic scripts: a survey", Artificial Intelligence Review, Vol. 52, No. 4, pp. 2235–2261, December 2019. Print ISSN 0269-2821, Online ISSN 1573-7462, <u>SCI Indexed</u>, UGC Listed Journal,[Impact factor 5.195]. UGC-CARE List (India).

8. Munish Kumar, **Simpel Rani Jindal**, M. K. Jindal and Gurpreet Singh Lehal, "Improved Recognition Results of Medieval Handwritten Gurmukhi Manuscripts Using Boosting and Bagging Methodologies", Neural Processing Letters (SCI Indexed Journal), pp 43-56, Vol. 50, No. 1, August 2019. (Impact Factor 2.591). Print ISSN No. 1370-4621, UGC-CARE List (India)

9. Munish Kumar and **Simpel Rani Jindal**, "Fusion of RGB and HSV colour space for foggy image quality enhancement", Multimedia Tools and Applications (SCI Indexed Journal), pp 9791-9799, Vol. 78, No. 8, April 2019. (Impact Factor 1.876). ISSN: 1380-7501 (Print) 1573-7721 (Online).

10. Munish Kumar, M. K. Jindal, R. K. Sharma and **Simpel Rani Jindal**, "A novel framework for writer identification based on pre-segmented Gurmukhi characters", Sadhana (SCI Indexed Journal), pp. 1-9, Vol. 43, No. 12, Article No 197, 2018. (Impact Factor 0.842). ISSN: 0256-2499 (Print) 0973-7677 (Online)

11. Munish Kumar, M. K. Jindal, R. K. Sharma and **Simpel Rani Jindal**, "Offline Handwritten Numeral Recognition using Combination of Different Feature Extraction Techniques", National Academy Science Letters, Vol. 41, No. 1, pp. 29-33, February 2018. Print ISSN 0250-541X, Online ISSN 2250-1754, SCI Indexed , UGC Listed Journal. [Impact factor 0.369]

12. Munish Kumar and **Simpel Rani Jindal**, "Devanagari Handwriting Grading System Based on Curvature Features", Computer Modeling in Engineering & Sciences, Vol. 113, No. 2, pp. 201-209, December 2017. [SCI Indexed Journal][UGC List Journal] [ISSN printed 1526-1492] [e-ISSN Online 1526-1506]

13. Ramandeep Kaur and **Simpel Rani**, "Segmentation of Overlapping Lines in Handwritten Devanagari Script", International Journal of Computer Science & Communication, Vol. 8(1), Sept. 2016 - March 2017, pp. 63-68, ISSN 0973-7391 [UGC approved List journal]

14. Munish Kumar, Manish K. Jindal, Rajendra K. Sharma and **Simpel R. Jindal**, "Offline Handwritten Pre-Segmented Character Recognition of Gurmukhi Script", Machine GRAPHICS & VISION, Vol. 25, No. 1/4, January 2016, pp. 45-55. [Scopus Indexed Journal] [ISSN 1230-0535]

15. Neetu and **Simpel Jindal,** "Punjabi Handwritten Character Recognition using Various Features and Classification Techniques", International Journal of Engineering Associates (ISSN: 2320-0804), Vol. 5, No. 6, pp. 13-15, June 2016.

16. Bharti Mehta and **Simpel Rani**, "Segmentation of broken characters of handwritten Gurmukhi script", Research Cell: An International Journal of Engineering Sciences, Vol. 3, pp. 95-105, December 2014, ISSN: 2229-6913 (Print), ISSN: 2320-0332 (Online).

17. Ramandeep Kaur and **Simpel Rani Jindal**, "Problems during Line Segmentation of Handwritten Devanagari Script Documents", International Journal of Information and Communication Technologies (IJICT), Vol. 6, No. 1-2, pp. 349-353, January-June 2013 (ISSN No. 0973-5836).

18. Ashu Kumar and **Simpel Rani Jindal**, "Segmentation of Handwritten Gurmukhi Text into Lines", *IJCA Proceedings on International Conference on Recent Advances and Future Trends in Information Technology (iRAFIT-2012)*, iRAFIT(9), pp. 13-17, Published by Foundation of Computer Science, New York, USA, March 2012. (ISSN: 0975-8887) (Impact Factor: 0.835)

19. Ashu Kumar, **Simpel Rani Jindal** and Galaxy Singla, "LINE SEGMENTATION USING CONTOUR TRACING" Journal of Global Research in Computer Science, Volume 3, No. 1, pp. 50-54, January 2012. (ISSN No. 2229-371X)

20. Navdeep Lata and **Simpel Rani Jindal**, "A Review of Feature Extraction Techniques for Gurmukhi Character recognition", International Journal of Research in Computer Science, Special Issue-1(2011), pp. 1-5, 2011 (ISSN No. 2249-8257).

21. Loveleen Kaur and **Simpel Jindal**, "Skew Detection Techniques for Various Scripts", International Journal of Scientific & Engineering Research, Vol. 2, No. 9, pp. 1-3, September 2011(ISSN 2229-5518)

22. **Simpel Jindal** and Gurpreet Singh Lehal, "Recognition of Gurmukhi Handwritten Manuscripts: Problems and Opportunities", International journal of Information Sciences and Applications, Vol. 2, No. 4, pp. 687-691, 2010. (ISSN No. 0974-2255)

23. Neetika Bansal, Vishal Goyal, and **Simpel Rani**. "Language Identification and Normalization of Code-Mixed English and Punjabi Text", Proceedings of the 17th International Conference on Natural Language Processing: System Demonstration, pages 30–31, Patna, India, December 18 - 21, 2020. ©2019 NLP Association of India (NLPAI)

24. Neetika, Vishal Goyal, and **Simpel Rani**. "Automatic Understanding of Code Mixed Social Media Text: A State of the Art." Proceedings of Advances in Information Communication Technology and Computing (AICTC 19), 19 August 2020: pp. 91-100. ISBN: 978-981-15-5420-9, Springer, Singapore https://doi.org/10.1007/978-981-15-5421-6_10.

25. Munish Kumar, M. K. Jindal, R. K. Sharma and **Simpel Rani Jindal** and Harjeet Singh, "Benchmark Datasets for Offline Handwritten Gurmukhi Script Recognition", 4th Workshop on Document Analysis and Recognition DAR, pp. 143-151, first online on 5 July 2019, date of workshop: 18th December 2018, IIIT Hyderabad, Part of the Communications in Computer and Information Science book series (CCIS, volume 1020), ISBN Print: 978-981-13-9360-0, Springer, Singapore

26. Munish Kumar, M. K. Jindal, R. K. Sharma and **Simpel Rani Jindal**, "Performance Comparison of Several Feature Selection Techniques for offline Handwritten Character Recognition", International Conference Research in Intelligent and Computing in Engineering (RICE-2018), Universidad Don Bosco (UDB), El Salvador, pp. 1-6, 22-24 August 2018. Print ISBN: 978-1-5386-2600-9

27. Akshi Bhardwaj and **Simpel Rani Jindal**, "Script Identification from Offline Handwritten Characters Using Combination of Features", in Proceedings of 6th International Conference on Soft Computing for Problem Solving (SocProS 2016), Volume 1, Springer Publication, Thapar University, Patiala, 23-24 December 2016, pp. 170-177. Print ISBN 978-981-10-3324-7, First Online 13 April 2017, Springer, Singapore

28. **S. Rani** and G. S. Lehal, "Recognition based classification of Gurmukhi manuscripts," in the Proceedings of *2016 Symposium on Colossal Data Analysis and Networking (CDAN)*, Medi-Caps Group of Institutions Indore, Madhya Pradesh, Indore, India, 2016, pp. 1-5, 18-19 March 2016, doi: 10.1109/CDAN.2016.7570956, Print on Demand(PoD) ISBN:978-1-5090-0670-0, Date Added to IEEE Xplore: 19 September 2016

29. Harleen Kaur and **Simpel Jindal**, "Page Border Noise Removal of Document images in Historical Gurmukhi Manuscripts", 7th International Conference on Advanced Computing and Communication Technologies (ICACCT-2013), Asia Pacific Institute of information Technology SD India, 16th November 2013, Volume 1, pp. 82-87, 2013. (ISBN No. 978-93-83083-38-1)

30. Nancy Bansal and **Simpel Jindal**, "Script Identification of Trilingual Document", in the Proceedings of International Conference on Information and Mathematical Sciences (IMS-13), Published by Elsevier science and Technology, Baba Farid College of Engineering and Technology, Deon, Bathinda, pp. 439-442, 24-26 October 2013 (ISBN No. 978-93-5107-162-4)

31. Arbha Goyal and **Simpel Rani,** "An Efficient Approach for Segmentation of Touching Characters in Handwritten Hindi Word", in the Proceedings of International Conference on Information and Mathematical Sciences (IMS-13), Published by Elsevier science and Technology, Baba Farid College of Engineering and Technology, Deon, Bathinda, pp. 45-47, 24-26 October 2013 (ISBN No. 978-93-5107-162-4)

32. Loveleen Kaur, Mandev Singh and **Simpel Jindal**, "Various skew Detection and Correction Techniques", in the Proceedings of International Conference on Information and Mathematical Sciences (IMS-13), Published by Elsevier science and Technology, Baba Farid College of Engineering and Technology, Deon, Bathinda, pp. 286-288, 24-26 October 2013 (ISBN No. 978-93-5107-162-4)

33. **Simpel Jindal** and Gurpreet Singh Lehal, "Line Segmentation of Handwritten Gurmukhi Manuscripts", in Proceedings of Workshop on Document Analysis and Recognition (DAR-2012), IIT Mumbai, ACM Publication, pp. 74-78, 16 December 2012. (ISBN: 978-1-4503-1797-9)

34. Harleen Kaur and **Simpel Jindal**, "Different Page Frame Detection and Removal methods: A Survey", in the Proceedings of International Conference on Information Management in the Knowledge Economy (IMKE-2012), Chitkara University, Punjab Campus, Chandigarh, India, pp. 140-148, 16 July 2012. (ISBN No. 978-81-920249-6-7)

35. Suman Kanta and **Simpel Jindal**, "OPC Based Data Acquisition & Control System", in the Proceedings of International Conference on Wireless Networks and Embedded Systems (WECON-2008), Chitkara Institute of Engineering and Technology, Rajpura, Punjab, India, pp. 612-615, 18-19 October 2008.

36. Naresh Kumar Garg and **Simpel Jindal**, **"**An Efficient Feature Set for Handwritten Digit Recognition", in the Proceedings of 15th IEEE International Conference on Advanced Computing and Communications (ADCOM 2007), Published by IEEE Computer Society Press, Los Alamitos USA, IIT Guwahati India, pp. 540-545, December 2007. (**ISBN No. 0-7695-3059-1**)

37. Seema and **Simpel Jindal**, "A Genetic Algorithm for Optimal Job Sequencing based on Minimum Elapsed Time", in the Proceedings of 2nd International Conference on Advanced Computing and Communication Technologies (ICACCT-2007), APIIT Panipat, Haryana, India, pp. 232-235, 3-4 November, 2007. (**ISBN No. 81-87433-53-1**)

38. Nancy Bansal and **Simpel Jindal**, "Speech Recognition Techniques, Comparative Analysis", in the Proceedings of National Conference on Emerging Trends in Computer Science & Engineering (ETCSE-2012), Guru Kashi University, Talwandi Sabo, pp. 179-185, 11-12 May, 2012. (ISBN No. 978-93-81212-16-5)

39. Himanshu Gupta and **Simpel Rani Jindal**, "Image Encryption Techniques-A Review", in the Proceedings of National Conference on Latest Advancements in Science, Engineering and Research (LASER'11), Baba Farid College of Engineering and Technology, Bathinda, Punjab, India, pp. 217-221, 26-27 May 2011. (ISBN No. 978-93-81361-07-8)

40. **Simpel Jindal** and Loveleen Kaur, "Comparison of Various Techniques used for Skew Detection and Correction", in the Proceedings of National Conference on Emerging Trends in Computing and Information Technology, Guru Gobind Singh Khalsa College, Sarhali, Punjab, India, pp. 66-70, 5 March 2011. (ISBN No. 978-81-7072-124-6)

41. **Simpel Jindal**, "A Survey on Classifiers used for Recognition of Indian Scripts", in the Proceedings of 2nd National Conference on Recent Advances and Future Trends in IT (RAFIT 2007), Punjabi University Patiala, pp. 118-123, 16-17 February 2007.

42. Naresh Kumar Garg and **Simpel Jindal**, "Handwritten digit recognition using tree classifier", in the Proceedings of National Conference on Artificial Intelligence at VPCOE, Baramati, Pune, 1-2 June 2007.

43. Naresh Kumar Garg and **Simpel Jindal**, "A New Feature set for handwritten digit recognition", in the proceedings of National Conference on Advances in Computer and Information Technology at GGNIMT, Ludhiana, 25 May 2007.

Conferences/Workshops Attended at National level	54
Conferences/Workshops Attended at International level	01
Short term/Refresher/Orientation Courses Attended	10
Expert talks/Guest Talk in Conferences/Workshops	11
Member of BOS, ACD and other academic and administrative committees at departmental and University level.	
Reviver of Journals 　1. Archives of Computational Methods in Engineering 　2. Ecological Informatics 　3. Transactions on Asian and Low-Resource Language Information Processing 　4. SN Applied Sciences	