



School: Mathematical and Computational Sciences
Department: Computer Science and Information
Technology(CSIT)
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Dr Girish Kumar Singh

Qualification:

- ❖ Doctor of Philosophy (Ph. D.) in Computer Science in 2008 from Jawaharlal Nehru University, New Delhi. **Thesis:** Rough Set Theory for Data Mining.
- ❖ Master of Technology (M. Tech.) in Information Technology from Tezpur University, Tezpur. **Project:** Spatial Data Clustering and Its Application in Information Retrieval.
- ❖ Master of Science (M. Sc.) in Mathematics from Jamia Millia Islamia, New Delhi.

Board Member

Member, All India Board of Information Technology Education, AICTE New Delhi.

Area of Interest: Machine Learning, Cyber Security, Cryptography. Mathematical Computing

Experience:

- Working as Associate Professor in D/O Computer Science & Information Technology Application, Guru Ghasidas Vishwavidyalaya, Bilaspur, (27th October 2022 to till date).
- Assistant Professor in D/O Computer Science & Application, Dr Harisingh Gour University Sagar, (3rd June 2013 to 26th October 2022).
- Assistant Professor in D/O Computer Science, Central University of Bihar, BIT Campus Patna (2nd September 2011 to 19th October 2012).
- Lecturer in D/O Computer Application, UIET, CSJM University Kanpur. (20th August 2007 to 1st September 2011).

Research Publication

Patent:

1. HYBRID POWER SUPPLY AC THELA (HPSAT), Inventor: DR. Dharmendra Kumar Singh, Dr Girish Kumar Singh, Application No.202011037949 A, Publication Date : 25/09/2020.
2. MULTIPLE OPERATED DOMESTIC INSTRUMENT-TOILET CLEANER (MODI-TOILET CLEANER), Inventor: DR. Dharmendra Kumar Singh, Dr Girish Kumar Singh, Application No.202011035844 A, Publication Date: 18/09/2020.

Paper in Journal:

1. Girish Kumar Singh and Sonajharia Minz, "Granulation using Clustering and Rough Set Theory & its Tree Representation", International Journal of Computer and Information Engineering, Computing and Technology, vol. 1:5, pp. 328-333, January 2007, ISSN 2279-0764.
2. Shobhit Gupta, Ranjit Rajak, Girish Kumar Singh and Sanjay Jain, "Review of Task Duplication Based (TDB) Scheduling Algorithms", Smart Computing Review, vol. 5, issue no. 1, pp. 67-75, January 2015, ISSN 2234-4624.
3. Shobhit Gupta, Ranjit Rajak, Girish Kumar Singh and Sanjay Jain, "Arbitrary Processor Network Scheduling Algorithms in Parallel Computing", Smart Computing Review, vol.

- 5, issue no. 3, pp. 126-134, June 2015, ISSN 2234-4624.
4. Ranjit Rajak, Shobhit Gupta, Girish Kumar Singh and Sanjay Jain, "A Novel Approach for Task Scheduling in Parallel Computing using Priority Attributes", *Smart Computing Review*, vol. 5, issue no. 4, pp. 356-367, August 2015, ISSN 2234-4624.
 5. Girish Kumar Singh, Shrabanti Mandal, "Cluster Analysis using Rough Set Theory", *Journal of Informatics and Mathematical Sciences*, Vol. 9, issue no. 3, pp. 509-520, March 2017, ISSN 0974-875X.
 6. Shrabanti Mandal, Girish Kumar Singh, Anita Pal, "A Hybrid Text Summarization Approach", *Journal of Informatics and Mathematical Sciences*, Vol. 9, issue no. 3, pp. 547-555, March 2017, ISSN 0974-875X.
 7. Girish Kumar Singh, "Spatial Data Clustering: DBSCAN & GDBSCAN", *International Journal of Linguistics & Computing Research*, Vol. 1, issue no. 2, pp. 11-18, ISSN 2456-8848.
 8. Shrabanti Mandal, Girish Kumar Singh, Anita Pal, "A Constraints Driven PSO Based Approach for Text Summarization" *Journal of Informatics and Mathematical Sciences*, Vol. 10, No. 4, pp. 703–714, October 2018, ISSN 0975-5748 (online); 0974-875X (print).
 9. Girish Kumar Singh, Shrabanti Mandal, "Discretization of Unlabeled Data using RST & Clustering", *Journal of Informatics and Mathematical Sciences*, Vol. 11, No. 1, pp. 31–40, January 2019, ISSN 0975-5748 (online); 0974-875X (print).
 10. Nikita Kashyap, Dharmendra Kumar Singh, Girish Kumar Singh, "A Novel Approach for Detecting and Grading Diabetic Retinopathy using Wavelet Transform and Artificial Neural Network", *International Journal of Research in Electronics and Computer Engineering*, Vol. 7, No. 2, pp. 100-104, April 2019, ISSN: 2393-9028 (Print), 2348-2281 (Online).
 11. Nikita Kashyap, Dharmendra Kumar Singh, Girish Kumar Singh, "Review of Digital image processing techniques for detection of diabetic retinopathy", *Journal of Emerging Technologies and Innovative Research*, Vol. 6, No. 3, pp 559-563, March 2019. ISSN 2349-5162.
 12. Shrabanti Mandal, Girish Kumar Singh, "LSA Based Text Summarization", *International Journal of Recent Technology and Engineering*, Vol. 9, No. 2, pp 150-156, July 2020, ISSN: 2277-3878.
 13. Parvendra Kumar, Milap C hand Sharma, Rakesh Saini, Girish Kumar Singh "Climatic variability at Gangtok and Tadong weather observatories in Sikkim, India, during 1961–2017", *Scientific Reports* 10, 15177 (2020). <https://doi.org/10.1038/s41598-020-71163-y>.
 14. Gaurav Gupta, Neha Gupta, Ankit Gupta, Pankaj Vaidya, Girish Kumar Singh, Varun Jaiswal, "Prediction of Alzheimer Associated Proteins (PAAP): A perspective to understand Alzheimer Disease for Therapeutic Design", *International Journal of Bioinformatics Research and Applications*, Vol.17 No.4, pp.363 - 374 (2021). <https://doi.org/10.1504/IJBRA.2021.117929>.

Paper in International Conference:

1. G Singh, B Bora and D K Bhattacharyya, "Spatial Data Mining and Its Application in Information Retrieval", *International Conference on Recent Trends in Probability and Statistics: Theory and Applications*, December 31, 2002-January 2, 2003, Department of Statistics, Guwahati University, Assam, India.2003.
2. Girish Kumar Singh and Sonajharia Minz, "Discretization Using Clustering and Rough Set Theory", *International Conference on Computing: Theory and Applications (ICCTA'07)*, March 5-7, 2007, pp. 330-336, 2007, ISBN 978-0-7695-2770-3.

3. Ravindra Nath, Girish Kumar Singh and Anil Kumar Yadav, "Binary String Matching Algorithm", International Conference on Reliability, Infocom Technology and Optimization ICRITO, 1-3, November 2010, pp 702-707, ISBN: 978-81-909732-2-9.
4. Om Prakash Sharma and Girish Kumar Singh, "Customer Behavior Prediction Using Data Mining", International Conference on Global Competitiveness and Corporate Governance Imperatives in emerging Economics, pp. 93-107, 15-16 February 2013, ISBN 978-91-81583-89-0.
5. Nikita Kashyap, Dharmendra Kumar Singh, Girish Kumar Singh, "Mobile Phone Based Diabetic Retinopathy Detection System Using ANN-DWT", International Conference on Electrical, Computer and Electronics (UPCON), 26-28 October 2017, pp. 428-486, ISBN: 978-1-5386-3004-4.

Paper in National Conference:

1. Girish Kumar Singh and Sonajharia Minz, "Quantitative Association Rule Using Granulation Tree", National Conference on Computing for National Development (INDIACom-07), pp-541-544, February 2007, ISBN 978-81-904526-0-1.

Paper presented in International Conference:

1. Girish Kumar Singh, "Rough Set Theory: A Technique to Data Mining", 17th Annual Conference of Society of Statistics, Computer and Applications, at Birla Institute of Management and Technology (BIMTECH), Bhubaneswar, 23 - 25 February 2015.

Book chapter:

1. Girish Kumar Singh and Sonajharia Minz, "Granulation using Clustering and Rough Set Theory", Methods and Models in Computing (NCM2C), Edited by D P Vidyarthi, Macmillan India Limited, PP 152-160, 2007, ISBN 0230630197.
2. Girish Kumar Singh and Sonajharia Minz, "Attribute based Hierarchical Clustering Algorithm", Networks, Security and Soft Computing: Trends and Future Directions, Edited by D.K. Bhattacharyya and Shyamanta M. Hazarika, Narosa Publishing House, New Delhi, India, PP 177-183, 2007, ISBN 978-81-7319-868-7.
3. Girish Kumar Singh, "Application of Data Mining in Cyber Security", India's Cyber Security, Edited by Saroj Kumar Rath, Synergy Books India, PP 77-87, 2014, ISBN: 978-93-82059-34-9.
4. Girish Kumar Singh, "Introduction to Artificial Intelligence", Artificial Intelligence and Natural Language Processing, Edited by Sudhir K Mishra, Cambridge Scholars Publishing, pp-171-192, 2018, ISBN: 978-1-5275-0766-1.
5. Girish Kumar Singh, "Language and Grammar for Computation", Artificial Intelligence and Natural Language Processing, Edited by Sudhir K Mishra, Cambridge Scholars Publishing, , pp-193-213, 2018, ISBN: 978-1-5275-0766-1.
6. Girish Kumar Singh, " Machine Learning", Artificial Intelligence and Natural Language Processing, Edited by Sudhir K Mishra, Cambridge Scholars Publishing, pp-214-241, 2018, ISBN: 978-1-5275-0766-1.
7. Girish Kumar Singh, "Probability Based Machine Learning", Artificial Intelligence and Natural Language Processing, Edited by Sudhir K Mishra, Cambridge Scholars Publishing, pp-242-257, 2018, ISBN: 978-1-5275-0766-1.
8. Girish Kumar Singh, Rahul K. Jain, Prabhati Dubey, "Majority-Based Classification in Distributed Environment", Soft Computing: Theories and Applications. Advances in Intelligent Systems and Computing, Edited by K. Ray, T. Sharma, S. Rawat, R. Saini, A.

Bandyopadhyay, Springer, Singapore, pp 321-332, Vol 742, 2018, Print ISBN 978-981-13-0588-7, Online ISBN 978-981-13-0589-4.

9. Girish Kumar Singh, Rahul K. Jain, Prabhati Dubey, "Study of Classification Techniques on Medical Datasets", Computing, Communication and Signal Processing - Advances in Intelligent Systems and Computing, Edited by B. Iyer, S. Nalbalwar, N. Pathak, Springer, Singapore, pp 557-565, Vol 810, 2018, Print ISBN 978-981-13-1512-1, Online ISBN 978-981-13-1513-8.
10. Shrabanti Mandal, Girish Kumar Singh, Anita Pal, "PSO-Based Text Summarization Approach Using Sentiment Analysis", Computing, Communication and Signal Processing - Advances in Intelligent Systems and Computing, Edited by B. Iyer, S. Nalbalwar, N. Pathak, Springer, Singapore, pp 845-854, vol 810, 2018, Print ISBN 978-981-13-1512-1, Online ISBN 978-981-13-1513-8.
11. Nikita Kashyap, Dharmendra Kumar Singh, Girish Kumar Singh "Color Histogram and Smartphone-Based Diabetic Retinopathy Detection System", Engineering Vibration, Communication and Information Processing Springer, Edited by Kanad Ray, S. N. Sharan, Sanyog Rawat, S. K. Jain, Sumit Srivastava, Anirban Bandyopadhyay, Springer Singapore, pp 669-678, vol 478, 2019, Print ISBN 978-981-13-1641-8, Online ISBN 978-981-13-1642-5.
12. Shrabanti Mandal, Girish Kumar Singh, Anita Pal, "Text Summarization Technique by Sentiment Analysis and Cuckoo Search Algorithm", Computing in Engineering and Technology, edited by Iyer, B., Deshpande, P.S., Sharma, S.C., Shiurkar, U., Springer, Singapore, pp 357-366, ISBN 978-981-329-515-5.
13. Rahul Kumar Jain, Girish Kumar Singh, "Clustering-Based Hybrid Approach for Multiclass Classification Using SVM", Computing in Engineering and Technology, edited by Iyer, B., Deshpande, P.S., Sharma, S.C., Shiurkar, U., Springer, Singapore, pp 367-377, ISBN 978-981-329-515-5.
14. Nikita Kashyap, Dharmendra Kumar Singh, Girish Kumar Singh, "Mobile phone-based diabetic retinopathy detection system", Diabetes and Fundus OCT, edited by Ayman S. El-Baz, Jasjit S. Suri, Elsevier, pp 113-132, ISBN 978-0-12-817440-1.

Conference/Workshop Organized:

1. Programme Coordinator in Science Fair & National Science Day Celebration 2016 held from 26th Feb to 4th March 2016 at Dr Harisingh Gour University Sagar.
2. Course Coordinator of Five days Faculty development Program on "Cyber Security" under the scheme of AICTE Training And Learning (ATAL) Academy Program sponsored by AICTE, New Delhi, October 14th -18th , 2019.
3. Course Coordinator of Five days online Faculty development Program on "Data Science" under the scheme of AICTE Training And Learning (ATAL) Academy Program sponsored by AICTE, New Delhi, May 9th -13th, 2020.
4. Course Coordinator of Five days online Faculty development Program on "Cyber Security" under the scheme of AICTE Training And Learning (ATAL) Academy Program sponsored by AICTE, New Delhi, May 18th -22nd , 2020.
5. Course Coordinator of Five days online Faculty development Program on "Artificial Intelligence" under the scheme of AICTE Training And Learning (ATAL) Academy Program sponsored by AICTE, New Delhi, May 25th -29th , 2020.

Conference Attended:

1. International Conference on Environment and Development: Developing Countries Perspective, April 7-8, 2005.
2. International Conference on Computing: Theory and Applications, Indian Statistical Institute,

Kolkata, March 5-7, 2007.

3. National Seminar on Development of Reliable Information Security System, Threats & Issues, April 03-04, 2015.

Workshop Attended:

1. Selected Topic in Software Engineering, Indian Institute of Technology Kharagpur, March 18-24, 2010.
2. Faculty Development Programme in Entrepreneurship, Center for Research and Industrial Staff Performance Bhopal (Organized BTIRT Sagar), May 05-16, 2014.
3. 52nd Orientation Programme, Academic Staff College Dr Harisingh Gour University, Sagar, November 10 - December 07, 2014.
4. Current Approaches in Teaching and Research in Science and Technology, Tezpur University, Tezpur, December 15-27, 2014.
5. Winter School on Statistical Data Analysis Methods, Indian Statistical Institute, Kolkata, February 16-20, 2015.
6. Interdisciplinary Refresher Course on “Pedagogy of science, Humanities and Technology”, Academic Staff College Dr Harisingh Gour University, Sagar, December 10 - 30, 2015.

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