

**CENTRAL UNIVERSITY OF JAMMU**

**FACULTY PROFILE PERFORMA**

<b>Name</b>	Dr. Jasvinder Pal Singh	
<b>Title &amp; Designation</b>	Assistant Professor Department of Computer Science & Engineering, Central University of Jammu. <b>Rahya-Suchani (Bagla), District Samba, Pincode - 181 143, Jammu &amp; Kashmir (J&amp;K), India</b>	
<b>Mobile Number</b>	+91-8491064520	
<b>Email</b>	<a href="mailto:jasvinder.cse@cuammu.ac.in">jasvinder.cse@cuammu.ac.in</a> <a href="mailto:jasvinder162@gmail.com">jasvinder162@gmail.com</a>	
<b>Educational Qualifications:</b>		
<b>Degree</b>	<b>Institution</b>	<b>Year</b>
PhD	Shri Mata Vaishno Devi University, Katra, Jammu & Kashmir	2020
M.Tech	RGPV (State Technological University), Bhopal, Madhya Pradesh	2009
<b>Career Profile:</b>		
<p><b>Dr. Jasvinder Pal Singh</b> is working as Assistant Professor in the Department of Computer Science and Engineering. Dr. Singh received his Ph.D. degree in 2020 from Shri Mata Vaisho Devi University (State University), Katra on “Multi-Gait Occlusion Reconstruction and Identification using Hybrid-NN”. He has done M.Tech and B.Tech in 2009 and 2005 and also qualified CCNA in 2006. He has more than 7 years of teaching and 1 year industry experience. Dr. Singh has published more than 20 articles in various peer-reviewed journals, conferences and book chapters.</p>		
<b>Academic Experience</b>		
<ul style="list-style-type: none"><li>• Assistant Professor, Central University of Jammu; 24/07/2023 to Till Date.</li><li>• Assistant Professor, TIET Patiala; 06/09/2021 to 21/07/2023.</li><li>• Assistant Professor, MIET Jammu; 03/09/2013 to 02/08/2016.</li><li>• Assistant Professor, RDFIST (Constituent Unit of Sarvepalli Radhakrishnan University) Bhopal; 06/07/2010 to 17/08/2013.</li></ul>		
<b>Areas of Interest / Specialization:</b>		
<ul style="list-style-type: none"><li>➤ <b>Discipline:</b> Biometric, Computer Vision, Optimization and Machine Learning</li><li>➤ <b>Area of Interests:</b><ul style="list-style-type: none"><li>• Behavioral Biometric Gait based Classification.</li><li>• Model-Based Multi-Gait Analysis.</li><li>• Occluded ROIs Reconstruction.</li><li>• Nature Inspired Algorithm (NIA) - PSO for Classification, and Prediction.</li><li>• Neural Network and Hybridization with NIA.</li></ul></li></ul>		
<b>Subjects Taught:</b>		
<ul style="list-style-type: none"><li>• Artificial Intelligence.</li><li>• Fundamentals of Object-Oriented Paradigm.</li><li>• Computer Programming.</li><li>• Object Oriented Programming using C++.</li><li>• Modern Web Programming Tools and Techniques.</li><li>• Computer Graphics.</li><li>• Data Structures.</li></ul>		

## Research Guidance:

- **M.Tech Students Supervising Guided 07 Master of Technology (M.Tech.) Candidates**

Name	Topic
Allu Patel (0104CS08MT02)	Object Segmentation Using Region Merging Based on Fuzzy Flood Fill
Ram Kumar (0104CS09MT27)	Altered fingerprint identification & classification using SP Detection & Fuzzy Classification
Harsha Pundalik Mahajan (0104CS10MT01)	Effect meta-heuristics swarm based algorithm on dct and dwt for best image compression
Arun Agrawal (0104CS10MT06)	Design and analysis of image de-noising filter based on pattern recognition: a practical approach
Vyom Kulshreshtha (0104CS08MT18)	Image Encryption Based on Random Scrambling and Chaotic Logistic Map
Sandeep Singh (0104CS09MT28)	A Hybrid Artificial Immune System for IDS Based on SVM and Belief Function
Mayank Gaurav (0104CS10MT28)	A lightweight multi-tier authentication method in cloud computing

- **Guided Undergraduate students in Capstone Projects.**
- **Guided MCA students in Capstone Projects.**

## Patents and Research Publications:

### A. PATENTS (Filed/Published/Granted)

1. Uday Pratap Singh, **Jasvinder Pal Singh**, Sakshi Arora and Sanjeev Jain, "A Method and a System to Perform Identification of an Individual Based on Gait Pattern", No. 201911029219. **(Published, 27 August 2021)**

### B. BOOKS/ CHAPTERS

1. Ravi Prakash, Shalabh Dwivedi, Sudarshan Sharma, **Jasvinder Pal Singh**; A Study of CRM Solution Using Salesforce, Global Emerging Innovation Summit (GEIS-2021), pp. 502-511 (10), Doi:10.2174/ 97816 81089010121010060 , **ISBN: 978-1-68108-902-7 (Bentham Books)**.
2. Kumar R., **Singh J.P.**, Srivastava G., "Altered Fingerprint Identification and Classification Using SP Detection and Fuzzy Classification", Proceedings of the Second International Conference on Soft Computing for Problem Solving (SocProS 2012), December 28-30, 2012. Advances in Intelligent Systems and Computing (AISC), vol. 236, Springer. **(Scopus Indexed)**.

### C. JOURNAL PAPERS

1. **Jasvinder Pal Singh**, S. Jain, and U. P. Singh, "Model Based Person Identification in Multi-Gait Scenario using Hybrid Classifier", Multimedia Systems, 2023. **(SCIE)**
2. **Jasvinder Pal Singh**, S. Jain, S. Arora and U. P. Singh, "Hybrid Neural Network Model for Reconstruction of Occluded Regions in Multi-Gait Scenario", Multimedia Tools and Applications, pp. 9607–9629, vol. 81, 2022. **(SCIE)**
3. **Jasvinder Pal Singh**, S. Jain, S. Arora and U. P. Singh, "A Survey of Behavioral Biometric Gait Recognition: Current Success and Future Perspectives", Archives of Computational Methods in Engineering, pp. 107-148, vol.28, 2021. **(SCIE)**
4. **Jasvinder Pal Singh**, S. Jain, S. Arora and U. P. Singh, "Reconstruction of Occluded ROI in Multi-Person Gait Based on Numerical Methods", Multimedia Systems, pp. 249-266, vol.26, no. 3, 2020. **(SCI)**
5. **Jasvinder Pal Singh**, Sanjeev Jain, Sakshi Arora and Uday Partap Singh, "Vision-Based Gait Recognition: A Survey", IEEE Access, pp. 70497-70527, vol.6, Nov. 2018. **(SCIE)**

6. Pooja Gangotia, Gaurav Shrivastva, **Jasvinder Pal Singh**, "An Approach of Human Identification based on Gait", *International Journal of Computer Applications (IJCA)*, pp.33-36, vol. 93, no.1, May 2014.
7. **Jasvinder Pal Singh**, Sanjay Agrawal, "An approach for human gait identification based on area", *IOSR Journal of Computer Engineering (IOSR-JCE)*, vol. 10, no. 3, pp. 43-47 (Mar. - Apr. 2013).
8. Maya Yadav, **Jasvinder Pal Singh**, Pradeep Baniya, "Complexity Identification of Inheritance and Interface based on Cohesion and Coupling Metrics to Increase Reusability", *International Journal of Computer Applications (IJCA)* vol. 64, no.8, pp.30-35, Feb. 2013.
9. Anand Handa, **Jasvinder Pal Singh**, Gourav Srivastava, "Software Quality Analysis by Object Oriented Approach and comparative Analysis with MEMOOD TOOL using UML", *International Journal of Computer Applications (IJCA)*, vol. 69, no.1, pp.1-6, May 2013.
10. Arun Agarwal, **Jasvinder Pal Singh**, Gourav Srivastava, "Design and Analysis of Image De-Noising Filter Based on Pattern Recognition: A Practical Approach", *International Journal on Computer Science and Technology (IJCT)*, vol. 4, no.2, June 2013.
11. Harsha D.Zope, **Jasvinder Pal Singh**, "Effect of Meta-Heuristics Swarm Based Algorithm on DCT and DWT for Best Image Compression", *International Journal of Applied Information Systems (IJAIS)*, vol. ICWAC, no.4, pp.1-7, July 2013.
12. Ram Kumar, **Jasvinder Pal Singh**, Gaurav Srivastava, "A Survey Paper on Altered Fingerprint Identification & Classification", *International Journal of Electronics Communication and Computer Engineering*, vol. 3, no. 5, pp. 1212-1216, Sept. 2012.
13. Ravendra Singh, **Jasvinder Pal Singh**, H.N. Verma, "An Image Matching Approach based on String Matching using Remainder-Prime Method", *International Journal of Computer Applications (IJCA)*, vol. 56, no.8, pp.1-5, October 2012.
14. Arun Kumar Jhapate, **Jasvinder Pal Singh**, "Gait Based Human Recognition System using Single Triangle", *International Journal on Computer Science and Technology (IJCT)*, vol. 2, no.2, June 2011.
15. Jitendra Singh Sengar, **Jasvinder Pal Singh**, Niresh Sharma, "Design a MNUR Method for Finding Similarity Between Fingerprint Images Based on Fingerprint Detection Technique by Using Neural Network", *International Journal on Computer Science and Technology*, vol. 2, no. 4, Oct.-Dec. 2011.

#### D. PEER-REVIEWED CONFERENCE PAPERS

1. **Jasvinder Pal Singh**, S. Arora, S. Jain and U. P. Singh, "A Multi-Gait Dataset for Human Recognition under Occlusion Scenario," *2019 IEEE International Conference on Issues and Challenges in Intelligent Computing Techniques (ICICT)*, Ghaziabad, India, 2019, pp. 1-6.
2. **Jasvinder Pal Singh**, S. Jain, S. Arora and U. P. Singh, "A Review of Occlusion Factor Affecting Gait Recognition", *International Conference on Innovative & Advanced Engineering Research (ICIAER 2019)*, 18<sup>th</sup> -19<sup>th</sup> October 2019.
3. S. Singh, **J. P. Singh** and G. Shrivastva, "A hybrid artificial immune system for IDS based on SVM and belief function," *2013 Fourth IEEE International Conference on Computing, Communications and Networking Technologies (ICCCNT)*, Tiruchengode, 2013, pp. 1-6.
4. Bharti, Jyoti, Gupta, M. K., and Singh, Jasvinder Pal. "Gait Recognition Using Histogram." *2012 4<sup>th</sup> ASME International Conference on Computer and Automation Engineering, (ICCAE)*. Ed. Jianhong Zhou. ASME Press, 2012. **EBook Chapter**.
5. **Jasvinder Pal Singh** and S. Jain, "Person identification based on gait using dynamic body parameters," *IEEE International Conference on Trendz in Information Sciences & Computing (TISC2010)*, Chennai, 2010, pp. 248-252."
6. N. Jain and **Jasvinder Pal Singh**, "Modification of ant algorithm for Feature selection," *2009 IEEE International Conference on Control, Automation, Communication and Energy Conservation*, Perundurai, Tamilnadu, 2009, pp. 1-5.

## Academic Services:

### A. WORKSHOPS/SEMINARS/SHORT TERM COURSE PARTICIPATED

- Two day workshop on “*Ethical Hacking and Cyber Security*” on 25<sup>th</sup> – 26<sup>th</sup> Sept. 2019, at School of Computer Science and Engineering, SMVD University, Katra.
- One week Faculty Development Program on “*Applications of Soft Computing and Machine learning*” on 3<sup>rd</sup> – 7<sup>th</sup> April 2018, at School of Computer Science and Engineering, SMVD University, Katra.
- One week short term course on “*Cloud Computing*” on 5<sup>th</sup> – 9<sup>th</sup> December 2016 at Computer Science and Engineering Department, SMVDU, organized by NITTTR Chandigarh
- 3 Days workshop on “*MISSION 10X*” organized by Wipro on 06<sup>th</sup> - 8<sup>th</sup> March 2014 held at Model Institute of Engineering and Technology, Jammu.
- 4 Days workshop on “*Rational Application Developer (RAD)*” organized on 18<sup>th</sup> November 2013 held at Model Institute of Engineering and Technology, Jammu.
- Seminar on “*Cloud Computing and Information Systems (CCIS)*” organized on 12<sup>th</sup> September 2013 held at Model Institute of Engineering and Technology, Jammu.
- Workshop on “*Effective Teaching and NBA Accreditation*” organized on 07<sup>th</sup> September 2013 held at Model Institute of Engineering and Technology, Jammu.
- Workshop on “*MATLAB and Its Application*” organized by the Computer Science and Engineering Department on 29<sup>th</sup> Feb- 1<sup>st</sup> March 2008 held at Lakshmi Narain College of Technology, Bhopal.

### B. PEER REVIEWING

- International Journal of RF Technologies: Research and Applications, 2023.
- Technical Member, 2023 International Conference on Frontiers of Artificial Intelligence and Machine Learning (FAIML 2023), China.
- IEEE International Conference on Current Development in Engineering and Technology (CCET 2022), India.
- Information Fusion, Elsevier, 2020.

### C. AWARDS AND RECOGNITION

- *Award for Research Publications*, 2016, Build for the Future Award in Recognition for research publications and output.
- *Certificate of appreciation*, 2014, for contribution and support in 2<sup>nd</sup> CSI J&K State Student Convention, organized by CSI Student chapter and EMC<sup>2</sup>.

Dr. Jasvinder Pal Singh