

Resume

Dr. Sarbjeet Singh

Professor (Computer Science and Engineering)
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Google Scholar profile:

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Research Interests

- Deep Learning, Machine Learning, Object Detection, Activity Recognition
- Smart Systems Design, Smart Sensors, IoT
- Cloud Computing (Trust, Replication, Scheduling, Information Dispersal)
- Social Networks Analysis (Anomaly Detection, Behaviour Analysis)
- Sentiment Analysis (Text, Audio, Video and Multimodal sentiment analysis)

Education

Ph.D. (Computer Science and Engineering)

Title: A Security Policy Framework for Grid Services
Supervisor: Prof. Seema Bawa
2005-2009, Thapar University, Patiala, Punjab

M.E. (Software Engineering)

Thesis Title: Quantum Database Search
Supervisor: Prof. Amardeep Singh
2001 – 2003, Thapar University, Patiala, Punjab.
9.68 CGPA with Distinction

B. Tech. (Computer Science and Engineering)

1997 – 2001, Punjab Technical University, Jalandhar, Punjab.
74.03%

Teaching Experience: 19+ Years

Total 19+ years of teaching experience in Computer Science and Engineering at UIET, Panjab University, Chandigarh (2003 – present)

Research Projects Completed: 03

Title: Development of 4G/5G based UAV Augmented Intelligent Monitoring and Surveillance System

Funding Agency: Ministry of Electronics and Information Technology (MeitY), New Delhi and Coral Telecom Limited, Noida

Amount: Rs. 182.685 Lakhs (MeitY Contribution: 164.416 Lakhs, Industry Contribution: 18.269 Lakhs)

Completed in 2022

Title: Development of Unified IP based Communication Platform for Voice, Video, Data, Messaging and Chat Services

Funding Agency: Ministry of Electronics and Information Technology (MeitY), New Delhi and Coral Telecom Limited, Noida

Amount: Rs. 66 Lakhs

Completed in 2021

Title: Development of Grid Computing Center for Distributed Applications

Funding Agency: All India Council for Technical Education (AICTE), New Delhi

Scheme: RPS (Research Promotion Scheme)

Amount: 5.75 Lakhs

Duration: 3 Years, completed in 2012

Research Publications: 126

Total Number of Publications: 126

Number of papers Published in International/National Journals: 56

Number of Papers Published in International and National Conferences: 50

Number of Papers Published as Book Chapters: 20

Number of PhD Students (Completed): 05

- Jagpreet Sidhu – Design and simulation of interoperable trust model for determining the trustworthiness of service providers in cloud environment (**under TEQIP-II**)
- Mala Kalra – An Intelligent Water Drops (IWD) optimization approach to multi-criteria workflow scheduling in cloud environment
- Makhn Singh – Design, simulation and performance analysis of information dispersal algorithm based cloud storage system
- Ravneet Kaur – Design and development of user profiling based technique to detect compromised accounts in online social networks (**Under Visvesvaraya PhD Scheme**)
- Lovejit Singh – Development of multimodal system for emotion recognition (**under UGC-BSR Scheme**)

Number of PhD Students (Under Supervision): 06

- Naveen Dogra – Design, simulation and performance analysis of optimized data replication scheme for cloud systems
- Mankirt Kaur – Design and Development of Layered Framework for Storage and Retrieval of Multi-Dimensional Traffic Data (under UGC-BSR Scheme)

- Simrat Kaur - Abusive Content Detection and Classification System for Online User-Generated Data
- Gurmeet Kaur – Development of deep transfer learning based model for detection of violence in videos
- Ravpreet Kaur – Development of deep learning based technique for multi-focus image fusion
- Bignonjot Kaur

Papers published in International Journals

1. Victor Chang, Jagpreet Sidhu, **Sarbjeet Singh** and Rajinder Sandhu, “SLA-based Multi-dimensional Trust Model for Fog Computing Environments”, *Journal of Grid Computing*, Vol. 21, Issue 1, Springer, 2023, pp. 1-19. DOI: <https://doi.org/10.1007/s10723-022-09632-z> [**SCIE INDEXED**]
2. Lovejit Singh, Naveen Aggarwal and **Sarbjeet Singh**, “PUMAVE-D: Panjab University multilingual audio and video facial expression dataset”, *Multimedia Tools and Applications*, Springer, 2022, pp. 1-28. DOI: <https://doi.org/10.1007/s11042-022-14102-5> [**SCIE INDEXED**]
3. Ravpreet Kaur and **Sarbjeet Singh**, “A comprehensive review of object detection with deep learning”, *Digital Signal Processing*, Vol. 132, December 2022, pp. 1-17. DOI: <https://doi.org/10.1016/j.dsp.2022.103812> [**SCIE INDEXED**]
4. Mankirat Kaur, **Sarbjeet Singh** and Naveen Aggarwal, “Missing traffic data imputation using a dual-stage error-corrected boosting regressor with uncertainty estimation”, *Information Sciences*, Vol. 586, March 2022, pp. 344-373. DOI: <https://doi.org/10.1016/j.ins.2021.11.049> [**SCIE INDEXED**]
5. Ravneet Kaur, **Sarbjeet Singh** and Harish Kumar, “An intrinsic authorship verification technique for compromised account detection in social networks”, *Soft Computing*, Vol. 25, No. 6, 2021, pp. 4345-4366. DOI: <https://doi.org/10.1007/s00500-020-05445-y> [**SCIE INDEXED**]
6. Ravneet Kaur, **Sarbjeet Singh** and Harish Kumar, “TB-CoAuth: Text based continuous authentication for detecting compromised accounts in social networks”, *Applied Soft Computing*, Vol. 97, 2020, 106770. DOI <https://doi.org/10.1016/j.asoc.2020.106770> [**SCIE INDEXED**]
7. Mala Kalra and **Sarbjeet Singh**, “Multi-objective Energy Aware Scheduling of Deadline Constrained Workflows in Clouds using Hybrid Approach”, *Wireless Personal Communications*, 2020, pp. 1-22. DOI <https://doi.org/10.1007/s11277-020-07759-4> [**SCIE INDEXED**]
8. Ahlawat Anup, Kabir, Kanav Sharma, Kartik Pathak, **Sarbjeet Singh**, Sakshi Kaushal and Harish Kumar, “Smart surveillance using on cloud machine learning and internet controlled UAVs”, *Advances in Mathematics: Scientific Journal* 9 (6), 2020, pp. 3789–3794
9. Mala Kalra and **Sarbjeet Singh**, “An intelligent water drops-based approach for workflow scheduling with balanced resource utilisation in cloud computing”, *International Journal of Grid and Utility Computing*, Vol. 10, No. 5, 2019, pp. 528-544. DOI 10.1504/IJGUC.2019.10022640 [**SCOPUS INDEXED**]
10. Mala Kalra and **Sarbjeet Singh**, “Multi-criteria workflow scheduling on clouds under deadline and budget constraints”, *Concurrency and Computation: Practice and Experience* 31, no. 17, e5193, 2019, pp. 1-16. DOI <https://doi.org/10.1002/cpe.5193> [**SCIE INDEXED**]
11. Jagpreet Sidhu and **Sarbjeet Singh**, “Using the Improved PROMETHEE for selection of trustworthy Cloud Database Servers”, *International Arab Journal of Information Technology*, Vol. 16, No. 2, March 2019, pp. 194-202. [**SCIE INDEXED**]

12. Lovejit Singh, **Sarbjeet Singh** and Naveen Aggarwal, “Improved TOPSIS method for peak frame selection in audio-video human emotion recognition”, *Multimedia Tools and Applications*, Springer, 2018, pp. 1-32. DOI: <https://doi.org/10.1007/s11042-018-6402-x> [**SCIE INDEXED**]
13. Ravneet Kaur, **Sarbjeet Singh** and Harish Kumar, “AuthCom: Authorship Verification and Compromised Account Detection in Online Social Networks using AHP-TOPSIS embedded Profiling Based Technique”, *Expert Systems with Applications*, Elsevier, Vol. 113, 2018, pp. 397-414. DOI: <https://doi.org/10.1016/j.eswa.2018.07.011> [**SCIE INDEXED**]
14. Ravneet Kaur, **Sarbjeet Singh** and Harish Kumar, “Rise of spam and compromised accounts in online social networks: A state-of-the-art review of different combating approaches”, *Journal of Network and Computer Applications*, Elsevier, Vol. 112, 2018, pp. 53-88. DOI: <https://doi.org/10.1016/j.jnca.2018.03.015> [**SCIE INDEXED**]
15. Mankirat Kaur and **Sarbjeet Singh**, “Ranking based comparative analysis of graph centrality measures to detect negative nodes in online social networks”, *Journal of Computational Science*, Elsevier, Vol. 23, 2017, pp. 91-108. DOI: <https://doi.org/10.1016/j.jocs.2017.10.018> [**SCIE INDEXED**]
16. Sakshi Kaushal, Harish Kumar, **Sarbjeet Singh**, Shubhani Aggarwal, Jasleen Kaur and Sundarapandian Vaidyanathan, “Modelling and simulation of analytical approach to handle real-time traffic in VoIP network”, *International Journal of Simulation and Process Modelling*, Inderscience, Vol. 13, Issue 1, 2017, pp. 35-42. DOI: <https://doi.org/10.1504/IJSPM.2018.090267>
17. Jagpreet Sidhu and **Sarbjeet Singh**, “Design and Comparative Analysis of MCDM-based Multi-dimensional Trust Evaluation Schemes for Determining Trustworthiness of Cloud Service Providers”, *Journal of Grid Computing*, 2017, pp. 1-22, DOI 10.1007/s10723-017-9396-0 [**SCIE INDEXED**]
18. **Sarbjeet Singh** and Jagpreet Sidhu, “Compliance-based Multi-dimensional Trust Evaluation System for determining trustworthiness of Cloud Service Providers”, *Future Generation Computer Systems*, Vol. 67, 2017, pp. 109-132. DOI: [doi:10.1016/j.future.2016.07.013](https://doi.org/10.1016/j.future.2016.07.013) [**SCIE INDEXED**]
19. Navneet Kaur Gill and **Sarbjeet Singh**, “A dynamic, cost-aware, optimized data replication strategy for heterogeneous cloud data centers”, *Future Generation Computer Systems*, Vol. 65, 2016, pp. 10-32. DOI: [doi:10.1016/j.future.2016.05.016](https://doi.org/10.1016/j.future.2016.05.016) [**SCIE INDEXED**]
20. Jagpreet Sidhu and **Sarbjeet Singh**, “Improved TOPSIS Method Based Trust Evaluation Framework for Determining Trustworthiness of Cloud Service Providers”, *Journal of Grid Computing*, 2016, DOI 10.1007/s10723-016-9363-1 [**SCIE INDEXED**]
21. Rajanpreet Kaur Chahal and **Sarbjeet Singh**, “Fuzzy Rule-Based Expert System for Determining Trustworthiness of Cloud Service Providers”, *International Journal of Fuzzy Systems*, 2016, pp. 1-17, DOI 10.1007/s40815-016-0149-1 [**SCIE INDEXED**]
22. **Sarbjeet Singh** and Jagpreet Sidhu, “An Approach for Determining Trustworthiness of Individuals in a Web-Based Social Network”, *Arabian Journal for Science and Engineering*, Vol. 41, Issue 2, 2016, pp. 461-477. <http://dx.doi.org/10.1007/s13369-015-1656-3> [**SCIE INDEXED**]
23. Ravneet Kaur and **Sarbjeet Singh**, “A comparative analysis of structural graph metrics to identify anomalies in online social networks”, *Computers & Electrical Engineering*, Elsevier, 2016. DOI: <http://dx.doi.org/10.1016/j.compeleceng.2016.11.018> [**SCIE INDEXED**]
24. Simrat Kaur, **Sarbjeet Singh**, Sakshi Kaushal, and Arun Kumar Sangaiah, “Comparative Analysis of Quality Metrics for Community Detection in Social Networks using Genetic Algorithm”, *Neural Network World*, Vol. 26, 6/2016, pp. 625-641. DOI: <https://doi.org/10.14311/nnw.2016.26.034> [**SCIE INDEXED**]

25. Jagpreet Sidhu and **Sarbjeet Singh**, “A Novel Cloud Auditor based Trust Management Framework for Cloud Computing”, *International Journal of Grid and Utility Computing*, Vol. 7, No. 3, Inderscience, 2016, pp. 219-235. [SCOPUS INDEXED]
26. Lovejit Singh and **Sarbjeet Singh**, “Score-based genetic algorithm for scheduling workflow applications in Clouds”, *International Journal of Grid and Utility Computing*, Inderscience, 2016, Accepted for Publication, In Press. [SCOPUS INDEXED]
27. Ravneet Kaur and **Sarbjeet Singh**, “A review of social network centric anomaly detection techniques”, *International Journal of Communication Networks and Distributed Systems*, Vol. 17, No. 4, 2016, pp. 358-386. DOI: <http://dx.doi.org/10.1504/IJCND.2016.080582> [SCOPUS INDEXED]
28. Mankirat Kaur and **Sarbjeet Singh**, “Detecting Negative Relations in Social Networks”, *International Journal of Communication Networks and Distributed Systems*, Vol. 17, No. 2, 2016, pp. 164-188. DOI: <http://dx.doi.org/10.1504/IJCND.2016.079100> [SCOPUS INDEXED]
29. Ravneet Kaur and **Sarbjeet Singh**, “A survey of data mining and social network analysis based anomaly detection techniques”, *Egyptian Informatics Journal*, Vol. 17, Issue 2, Elsevier, 2016, pp. 199-216. <http://dx.doi.org/10.1016/j.eij.2015.11.004> [SCOPUS INDEXED]
30. Mankirat Kaur and **Sarbjeet Singh**, “Analyzing Negative Ties in Social Networks: A Survey”, *Egyptian Informatics Journal*, Vol. 17, Issue 1, Elsevier, 2016, pp. 21-43. <http://dx.doi.org/10.1016/j.eij.2015.08.002> [SCOPUS INDEXED]
31. Mala Kalra and **Sarbjeet Singh**, “A review of metaheuristic scheduling techniques in cloud computing”, *Egyptian Informatics Journal*, Vol. 16, Issue, 3, Elsevier, 2015, pp. 275-295. <http://dx.doi.org/10.1016/j.eij.2015.07.001> [SCOPUS INDEXED]
32. Sakshi Goyal, **Sarbjeet Singh** and Makhan Singh, “An Information Dispersal Algorithm Based Technique for Backup of Data in Cloud Data Centers”, *International Review on Computers and Software (I.RE.CO.S)*, Vol. 10, No. 2, February, 2015, pp. 144-156. [SCOPUS INDEXED]
33. Naveen Dogra and **Sarbjeet Singh**, “A Survey of Dynamic Replication Strategies in Distributed Systems”, *International Journal of Computer Applications (IJCA)*, Vol. 110, No. 11, January 2015, pp. 1-4.
34. Makhan Singh and **Sarbjeet Singh**, “Review of Implicit Security Mechanisms for Cloud Computing”, *International Journal of Computer Applications (IJCA)*, Vol. 106, No. 17, November 2014, pp. 24-28.
35. Rohit Kumar and **Sarbjeet Singh**, “Cloud Testing: Perspective and Challenges”, *International Journal of Computer Applications (IJCA)*, Vol. 106, No. 17, November 2014, pp. 17-23.
36. Lovejit Singh and **Sarbjeet Singh**, “Deadline and Cost Based Ant Colony Optimization Algorithm for Scheduling Workflow Applications in Hybrid Cloud”, *International Journal of Scientific & Engineering Research*, Volume 5, Issue 10, October-2014, pp. 1417-1420.
37. Ranjit Singh and **Sarbjeet Singh**, “Score Based Deadline Constrained Workflow Scheduling Algorithm for Cloud Systems”, *International Journal on Cloud Computing: Services and Architecture (IJCCSA)*, Vol.3, No.6, December 2013, pp. 31-41.
38. **Sarbjeet Singh** and Jagpreet Sidhu, “A Survey of XML-based Security Standards for Handling Security Requirements of Grid and Cloud”, *International Journal of Engineering and Technology*, Vol. 5, No. 4, Aug-Sep 2013, pp. 3367-3373. [SCOPUS INDEXED]
39. Lovejit Singh, **Sarbjeet Singh**, “A Survey of Workflow Scheduling Algorithms and Research Issues”, *International Journal of Computer Applications (IJCA)*, Vol. 74, No. 15, July 2013, pp. 21-28.

40. Gurleen Kaur and **Sarbjeet Singh**, “Implementing XML-based Role and Schema Migration Scheme for Clouds”, *International Journal of Engineering and Technology*, Vol. 5, No. 1, Feb-Mar 2013, pp. 220-225. [SCOPUS INDEXED]
41. Maninder Singh and **Sarbjeet Singh**, “Design and Implementation of Multi-tier Authentication Scheme in Cloud”, *International Journal of Computer Science Issues*, Vol. 9, Issue 5, No. 2, September 2012, pp. 181-187.
42. Simrat Pal Kaur and **Sarbjeet Singh**, “A New Image Steganography Based on 2^k Correction Method and Canny Edge Detection”, *International Journal of Computing and Business Research*, Proceedings of ‘I-Society 2012’, 2012.
43. Simrat Kaur and **Sarbjeet Singh**, “Comparative Analysis of Job Grouping based Scheduling Strategies in Grid Computing”, *International Journal of Computer Applications (IJCA)*, Vol. 43, No. 15, April 2012, pp. 28-35.
44. Seema, **Sarbjeet Singh** and Dolly Sharma, “An Access Control Framework for Grid Environment”, *Indian Journal of Computer Science and Engineering*, Vol. 2, No. 6, Dec 2011 – Jan 2012, pp. 937-948.
45. **Sarbjeet Singh**, “Trust Based Authorization Framework for Grid Services”, *Journal of Emerging Trends in Computing and Information Sciences*, Vol. 2, No. 3, March 2011, pp. 136-144.
46. Manisha Bhardwaj, **Sarbjeet Singh** and Makhan Singh, “Implementation of Single Sign-on and Delegation Mechanisms in Alchemi.NET based Grid Computing Framework”, *International Journal of Information Technology and Knowledge Management*, Vol. 4, No. 1, January-June 2011, pp. 289-292.
47. Dolly Sharma, **Sarbjeet Singh** and Seema, “An Approach to find Trustworthiness among Different Domains in a Grid Environment”, *International Journal of Advanced Research in Computer Science*, Vol. 1, No. 4, Nov-Dec 2010, pp. 474-482.
48. Makhan Singh and **Sarbjeet Singh**, “A Novel Grid-based Resource Management Framework for Collaborative e-Learning Environments”, *International Journal of Computer Applications (IJCA)*, Vol. 10, No. 4, November 2010, pp. 11-14.
49. Kamalbir Singh and **Sarbjeet Singh**, “Design and Evaluation of XACML Conflict Policies Detection Mechanism”, *International Journal of Computer Science and Information Technology (IJCSIT)*, Vol. 2, No. 5, October 2010, pp. 65-74.
50. Jagpreet Sidhu and **Sarbjeet Singh**, “Design, Implementation and Evaluation of Grid Environment for DV to MPEG4 Video Conversion”, *International Journal of Computer Science & Communication*, Vol. 1, No. 2, September 2010, pp. 151-155.
51. **Sarbjeet Singh**, Kamalbir Singh and Harpal Kaur, “Design and Evaluation of Policy Based Authorization Model for large scale Distributed Systems”, *International Journal of Computer Science and Network Security*, Vol. 9, No. 11, 2009, pp. 49-55.
52. **Sarbjeet Singh** and Seema Bawa, “Proxy Based Authentication and Management of Multiple User Credentials for Grid Services”, *International Journal of Systemics, Cybernetics and Informatics (IJSCI)*, April 2008, pp. 37-43.
53. **Sarbjeet Singh** and Seema Bawa, “A Privacy Policy Framework for Grid and Web Services”, *Information Technology Journal* 6 (6), 2007, pp. 809-817. [SCOPUS INDEXED]
54. **Sarbjeet Singh** and Seema Bawa, “Enabling Trust and Privacy Based Access for Grid Services”, *Journal of Computer Science*, Vol. 1, Issue 5, 2007, pp. 357-365.

55. **Sarbjeet Singh** and Seema Bawa, “A Privacy, Trust and Policy based Authorization Framework for Services in Distributed Environments”, *International Journal of Computer Science*, Vol. 2, No. 1, 2007, pp. 85-92. <http://www.waset.org/ijcs/v2/v2-2-11.pdf>, <http://www.enformatika.org/ijcs/v2/v2-1-8.pdf>
56. Amardeep Singh and **Sarbjeet Singh**, “Applying Quantum Search to Automated Test Pattern Generation for VLSI Circuits”, *International Journal of Quantum Information*, Vol: 1, No: 1 (2003), Pages: 79-91.

Papers Published as Book Chapters

1. Gurmeet Kaur and **Sarbjeet Singh**, “Violence Detection in Videos Using Deep Learning: A Survey”, *Proceedings of 3rd International Conference on Advances in Information Communication Technology and Computing (AICTC 2021)*, *Advances in Information Communication Technology and Computing, Lecture Notes in Networks and Systems*, Vol 392, pp.165-173, Springer, 2022. DOI: https://doi.org/10.1007/978-981-19-0619-0_15
2. Vishal Dhull, Sumindar Kaur Saini, **Sarbjeet Singh** and Akashdeep Sharma, “COVID-19 Forecasting using Machine Learning Models”, *Challenges and Opportunities for Deep Learning Applications in Industry 4.0 (2022)*: pp. 131-158.
3. Jyoti Goyal, Khushboo Singla, Akashdeep and **Sarbjeet Singh**, “A Survey of Wireless Communication Technologies from 1G to 5G”, *Proceedings of Second International Conference on Computer Networks and Communication Technologies*, pp. 613-624. Springer, 2020.
4. Ravneet Kaur, **Sarbjeet Singh** and Harish Kumar, “MetaCom: Profiling Meta Data to Detect Compromised Accounts in Online Social Networks”, *Proceedings of International Conference on Future Network Systems and Security*, pp. 65-80. Springer, 2019.
5. Mankirat Kaur, **Sarbjeet Singh** and Naveen Aggarwal, “Study of NoSQL Databases for Storing and Analyzing Traffic Data”, *Proceedings of 2nd International Conference on Communication, Computing and Networking*, pp. 577-587. Springer, Singapore, 2019.
6. Ravneet Kaur, **Sarbjeet Singh** and Harish Kumar, “Authorship Analysis of Online Social Media Content”, *Proceedings of 2nd International Conference on Communication, Computing and Networking*, pp. 539-549. Springer, Singapore, 2019.
7. Lovejit Singh, **Sarbjeet Singh** and Naveen Aggarwal, “Two-Stage Text Feature Selection Method for Human Emotion Recognition”, *Proceedings of 2nd International Conference on Communication, Computing and Networking*, pp. 531-538. Springer, Singapore, 2019.
8. Sakshi Thakur, **Sarbjeet Singh** and Makhan Singh, “Detecting Sarcasm in Text”, *International Conference on Intelligent Systems Design and Applications*, pp. 996-1005, Springer, Cham, 2018. DOI: https://doi.org/10.1007/978-3-030-16660-1_97
9. Sukhwant Kaur, Makhan Singh and **Sarbjeet Singh**, “A Cost Optimal Information Dispersal Framework for Cloud Storage System”, *International Conference on Intelligent Systems Design and Applications*, pp. 1055-1064. Springer, Cham, 2018. DOI: https://doi.org/10.1007/978-3-030-16660-1_103
10. Makhan Singh and **Sarbjeet Singh**, “Information Dispersal Algorithms and their applications in Cloud Computing”, *Critical Research on Scalability and Security Issues in Virtual Cloud Environments*, Chapter 4, IGI Global, 2017, pp. 72-94.
11. **Sarbjeet Singh**, “A Review of Trust Management for Mobile Ad Hoc Networks”, In *Routing Protocols and Architectural Solutions for Optimal Wireless Networks and Security*, Chapter 7, IGI Global, 2017, pp. 142-154.
12. Rajanpreet Kaur Chahal and **Sarbjeet Singh**, “AHP-based Ranking of Cloud-Service Providers”, Accepted for publication in *Third International Conference on Information System Design and*

Intelligent Applications (INDIA-2016), to be published in Advances in Intelligent Systems and Computing (AISC) series, Springer, 2016.

13. Rajanpreet Kaur Chahal and **Sarbjeeet Singh**, “Fuzzy Logic and AHP-Based Ranking of Cloud Service Providers”, In Computational Intelligence in Data Mining—Volume 1: Proceedings of the International Conference on CIDM, 5-6 December 2015, vol. 410, Springer, 2016, pp. 337-346.
14. Rajanpreet Kaur Chahal and **Sarbjeeet Singh**, “Trust Calculation Using Fuzzy Logic in Cloud Computing”, Handbook of Research on Security Considerations in Cloud Computing, A volume in the Advances in Information Security, Privacy, and Ethics (AISPE) Book Series, IGI Global, 2015, pp. 127-172.
15. Navneet Kaur Gill and **Sarbjeeet Singh**, “Dynamic Cost-Aware Re-replication and Rebalancing Strategy in Cloud System”, In Proceedings of the 3rd International Conference on Frontiers of Intelligent Computing: Theory and Applications (FICTA) 2014, Advances in Intelligent Systems and Computing, Volume 328, Springer International Publishing, 2015, pp. 39-47.
16. Jagpreet Sidhu and **Sarbjeeet Singh**, “Peers Feedback and Compliance Based Trust Computation for Cloud Computing”, Security in Computing and Communications, Springer Berlin Heidelberg, 2014, pp. 68-80.
17. Lovejit Singh and **Sarbjeeet Singh**, “A Genetic Algorithm for Scheduling Workflow Applications in Unreliable Cloud Environment”, Second International Conference on Security in Computer Networks and Distributed Systems (SNDS-2014), Springer Berlin Heidelberg, 2014, pp. 139-150.
18. Priyanka Arora and **Sarbjeeet Singh**, “Design and Performance Analysis of Distributed Implementation of Apriori Algorithm in Grid Environment”, Proceedings of the 48th Annual Convention of Computer Society of India on ICT and Critical Infrastructure, Vol. 1, Springer International Publishing, 2014, pp. 653-661.
19. Nirmal Singh and **Sarbjeeet Singh**, “Design and Performance Analysis of File Replication Strategy on Distributed File System Using GridSim”, Proceedings of the 48th Annual Convention of Computer Society of India on ICT and Critical Infrastructure, Vol. 1, Springer International Publishing, 2014, pp. 629-637.
20. Gunmeet Singh and **Sarbjeeet Singh**, “A Comparative Study of Privacy Mechanisms and a Novel Privacy Mechanism”, 11th International Conference on Information and Communication Security, ICICS 2009, Beijing, China, December 14-17, LNCS 5927, pp. 346-358.

Papers published in International and National Conferences

1. Vishal Bharti and **Sarbjeeet Singh**, “Social Distancing Violation Detection Using Pre-Trained Object Detection Models”, 19th OITS International Conference on Information Technology (OCIT), IEEE, 2021, pp. 319-324. DOI: <https://doi.org/10.1109/OCIT53463.2021.00070>
2. Simrat Kaur, **Sarbjeeet Singh** and Sakshi Kaushal, “Abusive Content Detection in Online User-Generated Data: A survey”, Procedia Computer Science, Vol. 189, Elsevier, 2021, pp. 274-281.
3. Amritpal Kaur and Sarbjeeet Singh, “A Survey of Streaming Protocols for Video Transmission”, International Conference on Data Science, Machine Learning and Artificial Intelligence, Windhoek, Namibia, 9-12 August, 2021, pp. 186-191. DOI: 10.1145/3484824.3484892
4. Biponjot Kaur and **Sarbjeeet Singh**, “Object Detection using Deep Learning: A Review”, International Conference on Data Science, Machine Learning and Artificial Intelligence, Windhoek, Namibia, 9-12 August, 2021, pp. 328-334. DOI: 10.1145/3484824.3484889

5. Sumindar Kaur Saini, Vishal Dhull, **Sarbjeet Singh** and Akashdeep Sharma, “Visual exploratory data analysis of covid-19 pandemic”, 5th IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE), IEEE, 1-3 Dec, 2020, pp. 1-6. DOI: 10.1109/ICRAIE51050.2020.9358331
6. Mala Kalra and **Sarbjeet Singh**, “Application of intelligent water drops algorithm to workflow scheduling in cloud environment”, 8th International Conference on Computing, Communication and Networking Technologies (ICCCNT), IIT Delhi, IEEE, 3-5 July, 2017, pp. 1-7.
7. Jailalita, **Sarbjeet Singh** and Maitreyee Dutta, “Critical Path Based Scheduling Algorithm for Workflow Applications in Cloud Computing”, International Conference on Advances in Computing, Communication, & Automation (ICACCA) (Spring), IEEE, 8-9 April 2016, pp. 1-6.
8. Navneet Kaur and **Sarbjeet Singh**, “A Budget-constrained Time and Reliability Optimization BAT Algorithm for Scheduling Workflow Applications in Clouds”, Procedia Computer Science, Vol. 98, Elsevier, 2016, pp. 199-204.
9. Ravneet Kaur, Mankirat Kaur and **Sarbjeet Singh**, “A Novel Graph Centrality Based Approach to Analyze Anomalous Nodes with Negative Behavior”, Procedia Computer Science, Vol. 78, Elsevier, 2016, pp. 556-562.
10. Makhan Singh and **Sarbjeet Singh**, “Performance Analysis of Implicit Security Mechanisms for Cloud Storage System”, 2nd International Conference on Recent Advances in Engineering and Computational Sciences, IEEE, 2015.
11. **Sarbjeet Singh** and Jagpreet Sidhu, “A Collaborative Trust Calculation Scheme for Cloud Computing Systems”, 2nd International Conference on Recent Advances in Engineering and Computational Sciences, IEEE, 2015.
12. Simrat Kaur, **Sarbjeet Singh** and Sakshi Kaushal, “Performance Comparison of Sampling Techniques for Web based Networks”, 2nd International Conference on Recent Advances in Engineering and Computational Sciences, IEEE, 2015.
13. Vandna Kumari, Mala Kalra and **Sarbjeet Singh**, “Independent Task Scheduling in Cloud Environment Using Big Bang-Big Crunch Approach”, 2nd International Conference on Recent Advances in Engineering and Computational Sciences, IEEE, 2015.
14. Ravneet Kaur and **Sarbjeet Singh**, “Detecting Anomalies in Online Social Networks using Graph Metrics”, Annual IEEE India Conference (INDICON), December 2015.
15. Mankirat Kaur and **Sarbjeet Singh**, “Towards an Approach for Analyzing Negative ties in Online Social Networks”, Annual IEEE India Conference (INDICON), December 2015.
16. Jagpreet Sidhu and **Sarbjeet Singh**, “Compliance based Trustworthiness Calculation Mechanism in Cloud Environment”, Procedia Computer Science, 37, Elsevier, 2014, pp. 439-446.
17. Nitish Chopra and **Sarbjeet Singh**, “Survey on scheduling in hybrid clouds”, International Conference on Computing, Communication and Networking Technologies (ICCCNT), IEEE, 2014.
18. **Sarbjeet Singh** and Deepak Chand, “Trust evaluation in cloud based on friends and third party's recommendations”, International Conference on Recent Advances in Engineering and Computational Sciences (RAECS), IEEE, 2014.
19. Nitish Chopra and **Sarbjeet Singh**, “Deadline and Cost based Workflow Scheduling in Hybrid Cloud”, IEEE International Conference on Advances in Computing, Communications and Informatics (ICACCI), 2013, pp. 840-846.

20. Nitish Chopra and **Sarbjeet Singh**, “HEFT based workflow scheduling algorithm for cost optimization within deadline in hybrid clouds”, Fourth International Conference on Computing, Communications and Networking Technologies (ICCCNT), IEEE, 2013.
21. Mayank Arora, Mala Kalra, and **Sarbjeet Singh**, “ACOF: Autonomous computation offloading framework for Android using cloud”, 2nd International Conference on Information Management in the Knowledge Economy (IMKE), IEEE, 2013.
22. Navdeep Singh Chahal, Baljit S. Khehra and **Sarbjeet Singh**, “Optimizing the Performance of Digital Video File Compression in Cloud Environment”, 2nd International Conference on Biomedical Engineering and Assistive Technologies, 6-7 December, 2012 (BEATS 2012), National Institute of Technology, Jalandhar, Punjab, India.
23. Dolly Sharma, **Sarbjeet Singh**, Amandeep Verma and Seema, “A Comprehensive Approach to Trust Management in Grid Computing”, IEEE International Advance Computing Conference (IACC 2009), March 2009, Patiala, India, pp. 3105-3110.
24. Seema, **Sarbjeet Singh**, Amandeep Verma and Dolly Sharma, “Classification of Authorization Systems in Grid Environment”, IEEE International Advance Computing Conference (IACC 2009), March 2009, Patiala, India, pp. 3093-3098.
25. Maitreyee Dutta, **Sarbjeet Singh** and Ramteke Mamta G, “A Context-based Privacy Policy Model for Grid and Web”, Third International Conference on Advanced Computing and Communication Technologies (ICACCT-2008), November 08-09, 2008, Panipat, Haryana, India.
26. **Sarbjeet Singh** and Seema Bawa, “A Framework for Handling Security Issues in Grid Environment using Web Services Security Specifications”, Second International Conference on Semantics, Knowledge and Grid (SKG2006), November 2006, Guilin, China, pp. 68-68.
27. **Sarbjeet Singh** and Seema Bawa, “Design of a Framework for Handling Security Issues in Grids”, International Conference in Information Technology (ICIT2006), December 2006, pp. 178-179.
28. **Sarbjeet Singh** and Seema Bawa, “Security Policies: Key Factor for Success of Grid Services”, International Conference on Challenges and Opportunities in IT Industry (ICCII-2005), November 2005.

Papers Published (National Conferences/Symposiums/Workshops/Congress)

29. Maninder Singh, **Sarbjeet Singh**, “Client Oriented Security and Privacy Control Architecture for Cloud Systems”, Proceedings of UGC sponsored National Conference on Software Engineering, March 9, 2012, Doaba College, Jalandhar, Punjab, India, pp.30-35, ISBN 978-81-922709-6-8.
30. Priyanka Arora, **Sarbjeet Singh**, “Review of Grid Computing Applications: Meeting Compute/Storage Demands”, Proceedings of the 3rd National Conference on Next Generation Computing and Information Systems (NGCIS), MIET, Jammu, 18-19th December, 2010, pp. 87-90.
31. Priyanka Sood, **Sarbjeet Singh** and Makhan Singh, “Review of Software Retrieval Services on Large Scale Grids”, Proceedings of the 3rd National Conference on Next Generation Computing and Information Systems (NGCIS), MIET, Jammu, 18-19th December, 2010, pp. 91-96.
32. Simrat Kaur, **Sarbjeet Singh**, “Review of Various Grid Scheduling Strategies”, Proceedings of the 3rd National Conference on Next Generation Computing and Information Systems (NGCIS), MIET, Jammu, 18-19th December, 2010, pp. 138-142.
33. Ankit Narang, Ankit Gupta and **Sarbjeet Singh**, “A Reverse Engineering Approach to convert java .class file into source code”, IEEE Student Conference on Cognizance of Applied Engineering & Research, 29th October, 2010, UIET, Panjab University, Chandigarh, pp. 39-42.

34. Sugandha Sharma, **Sarbjeet Singh** and Makhan Singh, "Review of Video Compression Approach in Grid Environment", UGC Sponsored National Conference on Emerging Trends in Information Technology, 28th August, 2010, Doaba College, Jalandhar, Punjab, India, pp.138-141.
35. Harpal Kaur and **Sarbjeet Singh**, "An Integrated Resource Management Model for Grid Computing", UGC Sponsored National Conference on Emerging Trends in Information Technology, 28th August, 2010, Doaba College, Jalandhar, Punjab, India, pp.234-238.
36. Sugandha Sharma and **Sarbjeet Singh**, "Cloud Computing: Security Challenges and Issues", National Conference on Computing, Communication and Control (CCC-09), October 23-24, 2009, Chandigarh, India, pp. 150-154.
37. Manisha Bhardwaj and **Sarbjeet Singh**, "Review of Credential Management Systems", National Conference on Computing, Communication and Control (CCC-09), October 23-24, 2009, Chandigarh, India, pp. 277-280.
38. Maitreyee Dutta, **Sarbjeet Singh** and Ramteke Mamta G, "Case Based Approach in Privacy Framework for Grid and Web", Second National Conference on Emerging Principles and Practices of Computer Science and Information Technology", 4-5 September, 2005, GNE Ludhiana, pp. 269-271.
39. **Sarbjeet Singh**, "Probing Web Services Security for Grid Security Policy Model", Chandigarh Science Congress, 2008 (CHASCON-2008).
40. **Sarbjeet Singh** and Ramteke Mamta G, "A Privacy Policy Model for Mobile and Adhoc Network", National Conference on Wireless and Optical Communication (WOC-2007), December 13-14, 2007, PEC, Chandigarh, India.
41. **Sarbjeet Singh** and Ramteke Mamta G, "A Privacy Policy Model for Web-based Information System and Retrieval Analysis", National Conference on IT Research and Applications, November 16-18, 2007, MAIMT, Yamunanagar, Haryana.
42. **Sarbjeet Singh**, "Web Services Security Specifications Based Security Policy Model for Grid Services", Chandigarh Science Congress, 2007.
43. **Sarbjeet Singh**, "An Integrated Approach to Security Design for Grid and Web Services", National Conference on Emerging Trends in Wireless Communication and E-Security, January 2007, pp. 121-126.
44. Baninder Singh, Gaganjot Singh Sandhu, Maitreyee Dutta and **Sarbjeet Singh**, "Security Issues in Grid Environment", National Conference on Emerging Trends in Wireless Communication and E-Security, January 2007, pp. 458-462.
45. Vikas Garg, Rita Mahajan and **Sarbjeet Singh**, "Grid Environment: Design and Implementation Issues", National Conference on Recent Advances and Future Trends in IT (RAFIT-2005), March 2005.
46. **Sarbjeet Singh**, Harish Kumar and Gaurav Mittal, "Basic Infrastructure Tradeoffs and their analysis for Sensor Networks", National Conference on Issues and Trends in Wireless Networks (IT-WiNS2004), December 2004.
47. Harish Kumar, Karun Verma and **Sarbjeet Singh**, "Performance Analysis of Routing Protocols for Mobile Ad-hoc Networks for a Conference type Environment with Obstacles", 39th National Convention of Computer Society of India, December 2004.
48. **Sarbjeet Singh** and Gaurav Pander, "Self Organizing Maps (SOMs) for Recognition of Patterns", National Conference on Electronic Circuits and Communication Systems (ECCS-04), September 2004.
49. **Sarbjeet Singh**, Sakshi Kaushal and Gaurav Pander, "A Quantum Algorithm for Circuit Partitioning Problem", National Conference on Electronic Circuits and Communication Systems (ECCS-04), September 2004.

50. Amardeep Singh and Sarbjeet Singh, "Database Search using Quantum Computing", National Conference on Nanotechnology, September 2002.

Reviewer

1. Reviewer, **ACM Computing Surveys**, 2019, 2020, 2021, 2022.
2. Reviewer, **ACM Transactions on Asian and Low-Resource Language Information Processing**, 2022
3. Reviewer, **Soft Computing**, 2022.
4. Reviewer, **International Journal of Pervasive Computing and Communications**, Emerald, 2022.
5. Reviewer, **Expert Systems with Applications**, Elsevier, 2021
6. Reviewer, **Internet of Things**, Elsevier, 2020.
7. Reviewer, **Computer Methods and Programs in Biomedicine**, Elsevier, 2019.
8. Reviewer, **International Journal of Computers and Applications**, Taylor & Francis, 2019.
9. Reviewer, **Concurrency and Computation**, Wiley, 2019.
10. Reviewer, **IEEE Access**, 2018.
11. Reviewer, **Concurrency and Computation**, Wiley, 2018.
12. Reviewer, **Knowledge and Information Systems**, Springer, 2018.
13. Reviewer, **Behaviour & Information Technology**, Taylor & Francis, 2018.
14. Reviewer, **International Journal of Information Technology and Web Engineering**, IGI, 2018.
15. Reviewer, **IEEE Internet of Things Journal**, 2017.
16. Reviewer, **Kybernetes**, Emerald Publishing, 2017.
17. Reviewer, **Soft Computing**, Springer, 2017.
18. Reviewer, **Transactions on Parallel and Distributed Systems**, IEEE, 2017.
19. Reviewer, **Journal of Network and Computer Applications**, Elsevier, 2017.
20. Reviewer, **The Computer Journal**, Oxford University Press, 2016.
21. Reviewer, **Journal of Advanced Research**, Elsevier, 2016.
22. Reviewer, **Intelligent Automation & Soft Computing**, Taylor & Francis, 2016
23. Reviewer, **International Journal of Information Technology and Web Engineering**, IGI, 2016.
24. Reviewer, **International Journal of Computational Science and Engineering**, Inderscience, 2016.
25. Reviewer, **International Journal of Communication Networks and Distributed Systems**, Inderscience, 2016.
26. Reviewer, **International Journal of Internet Protocol Technology**, Inderscience, 2016.
27. Reviewer, **Journal of Grid Computing**, Springer, 2015.
28. Reviewer, **International Journal of Big Data Intelligence**, Inderscience, 2015.
29. Reviewer, **The Computer Journal**, Oxford University Press, 2014.
30. Reviewer, **International Journal of Information Technology & Decision Making**, World Scientific, 2014.
31. Reviewer, **Journal of Computer Science and Technology**, Springer, 2013.
32. Reviewer, **Panjab University Research Journal**, 2013.
33. Reviewer, **Journal of Computer Science and Technology**, Springer, 2012.
34. Reviewer, **International Journal of Physical Sciences**, 2011.
35. Reviewer, **IEEE SYSTEM JOURNAL** – Special Issue in Grid Resource Management, 2007.
36. Reviewer, International Conference, **EDI40, 2020, 2021**.
37. Reviewer, International Conference, **FNC 2016**.
38. Reviewer, International Conference, **SSCC-2016**.
39. Reviewer, International Conference, **RAECS-2015**
40. Reviewer, International Conference, **ETNCC-2015**.
41. Reviewer, International Conference, **FNC-2015**.
42. Reviewer, International Conference, **ICACCI-2015**.
43. Reviewer, International Conference, **SSCC-2015**.
44. Reviewer, International Conference, **IEEE INDICON-2015**.
45. Reviewer, **IGI Book Chapters, 2015**.
46. Reviewer, International Conference, **ICACCI-2014**.
47. Reviewer, International Conference, **ICNSC-2014**.
48. Reviewer, International Conference, **Confluence-2014**.
49. Reviewer, **JCIT, 2012**

50. Reviewer, **ICISIL-2011** (International Conference on Information Systems for Indian Languages), 2011.

Invited Talks

1. Delivered invited talk in refresher course organized at DCSA, PU, Chandigarh on the topics “Working with Mendeley” and “Working with References and Citations” on 10-12-2015.
2. Delivered an invited talk as a Resource Person on the topic titled “Career Opportunities in the field of Cloud Computing and Big Data Analytics” for ME (CSE) students on 2nd November, 2015 at Computer Science and Engineering Department, Chandigarh University, Gharuan, Punjab.
3. Delivered an invited talk as a Resource Person on the topic titled “Genetic Algorithms and their Applications” on 14th July, 2015 at DST-SERB sponsored One week workshop on Optimization Techniques and its Applications (WOTA-2015), organized by University Center for Research and Development (UCRD), Chandigarh University, Gharuan, Punjab from 13th July 2015 – 17th July, 2015.
4. Delivered an invited talk as a Resource Person on the topic titled “Genetic Algorithms and Their Applications in AI” on 09th July, 2015 at FDP on Emerging Trends in Artificial Intelligence, held at Global Institute of Management and Emerging Technologies, Amritsar, Punjab from 06th July 2015 – 10th July, 2015.
5. Delivered an invited talk as a Resource Person on the topic titled “Pointers and Memory Management” in four sessions on 07th July, 2015 at FDP on Programming Languages, held at Computer Science and Engineering Department, Rayat and Bahra University, Mohali, Punjab from 07th July 2015 – 10th July, 2015.
6. Delivered Expert Talk on “Genetic Algorithms” at PTU sponsored FDP on “Keys to Innovative Technologies and Emerging Software”, on 29th June, 2015, held at CGC College of Engineering, Landran, Mohali, Punjab from 29th June-03rd July, 2015.
7. Delivered Expert Talk on “Optimization using Genetic Algorithms” on 05th June, 2015, at PTU sponsored FDP entitled “Optimization and Security in Information and Computing Technology”, held at ACET Amritsar from 01-05 June, 2015.
8. Delivered expert talk on “Working with Mendeley” at Seminar on “Role of ICT in Education, Research and Innovation”, held at Department of Computer Science and Applications, Panjab University, Chandigarh on 21st November, 2014.
9. Delivered expert talk “Career Opportunities in Cloud Computing” on 6th October, 2014 for the students of B. Tech (Information Technology) of ACET, Amritsar and counselled them for their career.
10. Delivered an invited talk as a Resource Person on the topic titled “SMAC: Social Media, Mobility, Analytics and Cloud Computing” on 4th October, 2014 at TEQIP-II sponsored Short Term Course on “Latest Trends in Information and Communication Technologies”, conducted by Information Technology Department, Guru Nanak Dev Engineering College, Ludhiana, Punjab from 04th October 2014 – 08th October, 2014.
11. Delivered expert talk on 21-07-2014, 2:00 P.M - 4: 15 P.M on the topic "Tutorial and Problem solving on Cursors, Triggers & Stored Procedure" on 21st July 2014 in the Faculty Development Programme: Relational Database Management System, held from 21st July 2014 - 25th July 2014 organized by Rayat and Bahra College of Engineering & Biotechnology for Women, Mohali.
12. Delivered an expert talk on 8th July, 2014 during TEQIP-II sponsored Faculty Development Programme on “Recent Computing Paradigms” held from 7-11 July, 2014. Faculty Development Programme was organized by Department of Computer Science and Engineering, Guru Nanak Dev Engineering College, Ludhiana.
13. Delivered an invited talk as a Resource Person on the topic titled " SMAC: The new trend in software and IT industry" on 16th April 2014, organized by Department of Information Technology for the students of Information Technology at Institute of Engineering and Technology, Bhattal, Punjab.
14. Delivered an invited lecture as a Resource Person on the topic titled “Cloud Computing: Opportunities and Challenges” on 28th March, 2014 in PTU sponsored Conference ACCT-2014, held at Indo Global College of Engineering, Abhipur, Punjab.
15. Delivered an invited talk as a Resource Person on the topic titled "Cloud Computing - Opportunities for Students" on 16th October 2013, organized by Department of Information Technology for the students of Information Technology and Computer Science and Engineering at Institute of Engineering and Technology, Bhattal, Punjab.

16. Delivered an expert talk as a Resource Person on the topic titled “Working with Mendeley” on 9th July, 2013 in TEQIP-II sponsored One week National Short Term Training Programme on Aspects and Applications of Research Methodology in Science and Engineering held at UIET, Sector-25, Panjab University, Chandigarh.
17. Delivered an invited talk as a Resource person on the topic titled "Research Issues in Cloud Computing" on 3rd June, 2013 in AICTE sponsored Two Days Seminar-cum-Workshop on Cloud Computing held at Chandigarh Engineering College, Landran, Mohali, Punjab.
18. Delivered Expert Talk on “Cloud Computing – Opportunities and Research Issues” on 30-03-2013 in Two-Days National Seminar-Cum-Workshop on Cloud Computing and Embedded Systems organized by Rayat-Bahra Institute of Engineering and Nano-Technology, Hoshiarpur.
19. Delivered Expert Talk on “Introduction to Research Tools” on 19-02-2013 in Short Term Course on “Open Source Technologies” at NITTTR, Chandigarh.
20. Invited Expert Talk on “Computer Networks and WWW” delivered on 09-10-12 at Sachdeva Engineering College for Girls, Near Morinda, Punjab.
21. Delivered invited lectures on “Introduction to MS-Access” in refresher course organized by ASC, PU, Chandigarh at UIET in June – July, 2012
22. Delivered expert talk on “Computing Technologies” on 18.05.2012 during short term training programme on “Cloud Computing”, held on 14-18 May, 2012, at NITTTR, Chandigarh.
23. Delivered invited lectures in refresher course organized by ASC, PU, Chandigarh at UIET on topics “Working with MS-Access”, “Website Development”, and “Online Website Creation Using Google Sites”, 2011.
24. Expert Lectures Delivered on the topics “Working with MS-Word and MS-Excel” and “Secure Surfing of the Web” on 13-09-2011 in four weeks Orientation Course organized by ASC, PU, Chandigarh.
25. Delivered expert talk on “Cloud Computing vs. Other Computing Technologies” and “Security Issues in a Cloud” on 11.08.2011 during short term training programme on “Cloud Computing”, held from 08-12 August, 2011, at NITTTR, Chandigarh.
26. Delivered expert talk on MS Project at IET Bhaddal, on 31-03-2011.
27. Delivered expert talk on MS Project at SSGPURC on 26-03-2011.
28. Delivered expert talk on MS Project at SVIET, Banur, 2011.
29. Lecture-cum-Motivational Talk on “Computer Graphics and Animation” at “Seven-day Motivational Contact Program for talented School students from 5th November -11th November 2008” on 10th Nov 2008 at Department of Physics, PU, Chandigarh.

Academic/Administrative Responsibilities / Membership Professional Bodies

1. CSI (Computer Society of India) – Life Member
2. ISTE (Indian Society for Technical Education) – Life Member
3. ACM (Association for Computing Machinery) – 1 November, 2015 – 31 October, 2016
4. InCharge, Training and Placements, 2013 – till date.
5. InCharge, Academic Affairs, 2010-2012.
6. InCharge, Public Relations and Tours Committee, UTECHNO, UIET, 2005 – till date.
7. SPOC, Infosys Ltd., April 2015.
8. Member, Board of Studies in Computer Science Engineering from 1.4.15 to 31.3.17
9. Member, Board of Studies in BioInformatics from 1.4.15 to 31.3.17
10. Member, Administrative Committee, UIET, 2014.
11. Member, Board of Studies in BioInformatics from 1.4.11 to 31.3.13
12. Member, BOS, Information Technology, Amritsar College of Engineering and Technology, Amritsar, July 2014-June 2016.
13. Member, Board of Studies in Computer Science and Engineering from 1.4.13 to 31.3.15
14. Member, Board of Studies in BioInformatics from 1.4.13 to 31.3.15
15. Member, Board of Studies in Computer Science Engineering from 1.4.11 to 31.3.13
16. Member, Board of Studies in Information Technology from 1.4.11 to 31.3.13
17. Member, Board of Studies in Computer Science Engineering from 1.4.07 to 31.3.09
18. Member, Research Monitoring Committee, DCSA, PU, Chandigarh, for the year 2014.
19. Member, Board of Control, UIET, 2014.
20. Member, Academic Committee, UIET, 2013.
21. Member, Board of Control, UIET, 2012.

22. Member, Technical Committee, UIET, 2012.
23. Member, Technical Committee, UIET, 2011.
24. Member, Academic Committee, UIET, 2010.
25. Member, Board of Control UIET, 2009.
26. Member, Academic Committee, UIET, 2005.

Events Organized

1. Organized Four Weeks Summer Training Program on Infosys Foundation Program, June, 2015.
2. Organized Four Weeks Summer Training Program on Java Technologies, June, 2013.
3. Organized Four Weeks Summer Training Program on Java Technologies, June, 2012.
4. Organized Four Weeks Summer Training Program on Java Technologies, June, 2011.
5. Organized Four Weeks Summer Training Program on Java Technologies, June, 2008.
6. Organized Four Weeks Summer Training Program on Java Technologies, June, 2006.

Thesis Guided: 38

S. No.	Student	Year	Title	Role	Supervisors
1	Akash Sharma (UIET, CSE)	2022	Detection of Violent and Non-Violent Activities using Pose Estimation and Machine Learning	Supervisor	Dr. Sarbjeet Singh
2	Monika (UIET, CSE)	2022	Recognition and classification of Human Activities using 2D Pose Estimation and Machine Learning	Supervisor	Dr. Sarbjeet Singh
3	Amritpal Kaur (UIET, CSE)	2020	Performance Analysis of Video Transmission Protocols	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
4	Biponjot Kaur (UIET, CSE)	2020	Object Detection using Deep Learning	Supervisor	Dr. Sarbjeet Singh Mr. Rohit
5	Jyoti Goyal (UIET, CSE)	2019	IMS-based Communication Platform for Disaster Management System	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
6	Sakshi Thakur (UIET, CSE)	2018	Sarcasm Detection in Text: The Impact of Pragmatic Factors	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
7	Sukhwant Kaur (UIET, CSE)	2018	A Cost Optimal Information Dispersal Framework for Cloud Storage System	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
8	Jasleen Kaur (UIET, CSE)	2017	A Computational Model for Hardware Calibration for Real Time VoIP Applications	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
9	Jaspreet Kaur (UIET, CSE)	2017	Cost Effective Information Dispersal And Retrieval Framework For Cloud Storage	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
10	Nitin Jindal (UIET, CSE)	2016	Detection and Analysis of Human Emotions from Text using POS Tagger with Support Vector Machine	Supervisor	Dr. Sarbjeet Singh
11	Ravneet Kaur (UIET, CSE)	2015	A Graph Structure Based Approach for Identifying Anomalies in Online Social Networks	Supervisor	Dr. Sarbjeet Singh
12	Mankirat Kaur (UIET, CSE)	2015	An Approach Towards Analyzing Negative Ties in Online Social Networks	Supervisor	Dr. Sarbjeet Singh
13	Sakshi (UIET, CSE)	2014	Information Dispersal Algorithm Based Technique for Backup of Data in Cloud Data Centers	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
14	Rajanpreet Kaur Chahal (UIET, CSE)	2014	Multi-party Trust Calculation System using Fuzzy Logic in Cloud Computing	Supervisor	Dr. Sarbjeet Singh

15	Navneet Kaur Gill (UIET, CSE)	2014	Dynamic Cost-aware Re-replication and Re-balancing Strategy for Cloud Systems	Supervisor	Dr. Sarbjeet Singh
16	Ranjit Singh (UIET, CSE)	2013	Design and Simulation of Score Based Budget Constraint Workflow Scheduling Algorithms for Cloud Systems	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
17	Nitish Chopra (UIET, CSE)	2013	Workflow Scheduling For Cost Optimization in Hybrid Clouds	Supervisor	Dr. Sarbjeet Singh
18	Lovejit Singh (UIET, CSE)	2013	A Budget Constrained Time Minimization Genetic Algorithm for Scheduling Workflow Applications in Unreliable Cloud Environment	Supervisor	Dr. Sarbjeet Singh
19	Amaninder Singh (UIET, CSE)	2013	A Comparative Study of Different Cloud Platforms for a Banking Application	Supervisor	Dr. Sarbjeet Singh Dr. Naveen Aggarwal
20	Deepak Chand (UIET, CSE)	2012	Evaluation of Trust in Cloud Computing Environment	Supervisor	Dr. Sarbjeet Singh
21	Nirmal Singh (UIET, CSE)	2012	Performance Analysis of Hadoop Distributed File System with Dynamic Data Replication Strategy for Cloud Computing Storage	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
22	Gurleen Kaur (UIET, CSE)	2012	Design and Implementation of XML Based Role and Schema Migration Scheme for Cloud	Supervisor	Dr. Sarbjeet Singh
23	Maninder Singh (UIET, CSE)	2012	Design and Implementation of Multi-tier Authentication Scheme in Cloud	Supervisor	Dr. Sarbjeet Singh
24	Misha Saini (UIET, CSE)	2011	Fingerprinting Based Recursive Information Hiding Scheme in Cloud	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
25	Simrat Kaur (UIET, CSE)	2011	Comparative Study & Performance Analysis of Grid Scheduling Algorithms based on Job Grouping	Supervisor	Dr. Sarbjeet Singh
26	Priyanka Arora (UIET, CSE)	2011	Implementation of Apriori Algorithm in Grid Environment	Supervisor	Dr. Sarbjeet Singh
27	Priyanka Sood (UIET, CSE)	2011	Keyword-Based Resource Discovery in Grid Infrastructure	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
28	Simrat Pal Kaur (UIET, IT)	2011	Steganography Using Canny Edge Detection and 2^k Correction	Supervisor	Dr. Sarbjeet Singh Ms. Raj Kumari
29	Manisha Bhardwaj (UIET, CSE)	2010	Integration of Single Sign-on & Delegation Mechanisms with Alchemi .NET-based Grid Computing Framework	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
30	Sugandha Sharma (UIET, CSE)	2010	Implementation of Compute Intensive Problem of Video Compression in Grid Environment	Supervisor	Dr. Sarbjeet Singh Mr. Makhan Singh
31	Harpal Kaur (UIET)	2010	Economical and Hierarchical Based Resource Management Model for Grid Computing	Supervisor	Dr. Sarbjeet Singh
32	Kamalbir Singh (UIET, CSE)	2010	Design and Evaluation of XACML Conflict Policies Detection Mechanism	Supervisor	Dr. Sarbjeet Singh
33	Jagpreet Singh (UIET, CSE)	2010	Design, Implementation & Evaluation of Grid Environment for DV to MPEG4 Conversion	Supervisor	Dr. Sarbjeet Singh Ms. Puneet Jai Kaur

34	Seema (UIET, IT)	2009	An access control framework for grid environment	Co-Supervisor	Ms. Amandeep Puri Mr. Sarbjeet Singh
35	Dolly Sharma (UIET, IT)	2009	An approach to find trustworthiness among different domains in grid environment	Supervisor	Ms. Amandeep Puri Mr. Sarbjeet Singh
36	Ramteke Mamta G. (NITTTR, Chd)	2009	Enhancement in Privacy Model for Grid and Web Services	Co-Supervisor	Dr. (Mrs.) Maitreyee Dutta Dr. Sarbjeet Singh
37	Baninder Singh (NITTTR, Chd)	2007	Single sign-on simulation in grid environment	Co-Supervisor	Mrs. Maitreyee Dutta Mr. Sarbjeet Singh
38	Gaganjot Singh Sandhu (NITTTR, Chd)	2007	Simulation of access rights delegation in grid environment	Co-Supervisor	Mrs. Maitreyee Dutta Mr. Sarbjeet Singh

Conferences/Workshops/Seminars/Orientation Courses/Refresher Courses Attended

1. Attended and participated in RAECS, 2015.
2. Attended and participated in CHASCON, 2015.
3. Attended and presented paper titled "Compliance based trustworthiness calculation mechanism in cloud environment" at EUSPN-2014, the 5th International Conference on Emerging Ubiquitous Systems and Pervasive Networks (EUSPN 2014), held from September 22-25, in Halifax, Nova Scotia, Canada.
4. Attended and participated in CHASCON, 2014.
5. Attended NBA Accreditation Workshop organized by UIET from March 21-23, 2014 titled "Quality Initiatives in Technical & Higher Educational Institutions (in Compliance with NBA Accreditation)" by Engineering Staff College of India (ESCI).
6. Participated in International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS-2014), held at IITM-K, Thiruvananthapuram, from 13-15 March, 2014.
7. Attended Management Development Programme for Higher Education Institutions, Chandigarh at ISB Mohali, from February 06, 2014 to February 08, 2014.
8. Attended and participated in RAECS, 2014.
9. Attended CSI Annual convention from 13-15 December, 2013 at Visakhapatnam and presented two papers.
10. Attended AICTE sponsored Winter School programme on Cloud Computing from 11.11.13 to 22.11.13 at NITTTR, Chandigarh.
11. Attended Management Capacity Enhancement Programme 19-23 August 2013 under TEQIP-II at IIM Lucknow, Noida Campus.
12. Attended NPTEL Workshop held on 5th August, 2013 at ICSSR complex, PU, Chandigarh.
13. Attended programme on Achieving Excellence in Technical Education 16-19 July 2013 at Golden Jubilee Hall, PU, Chandigarh.
14. Attended One Day Faculty Development Programme conducted by TCS organized at CEC Landran on 20-04-2013.
15. Attended and participated in CHASCON, 2013.
16. Attended TEQIP sponsored Two Week National Level Faculty Development Programme on "MATLAB Fundamentals and Neural Networks and Fuzzy Logic Toolboxes" organized by UIET, Panjab University, Chandigarh from 3rd Dec 2012 to 14th Dec 2012.
17. Attended Procurement and PMSS training held at Chandigarh on 15th March, 2012 in collaboration with NPIU.
18. Attended and participated in CHASCON, 2012.
19. Attended UGC sponsored Short Term Course in "Handling Mid-Career Challenges in Academic Profession" organized by Academic Staff College, Panjab University, Chandigarh from 14-11-2011 to 19-11-2011.

20. Attended Faculty Development Programme on Project Management & IT, Cloud Computing on 21.06.2011 at SUSCET, conducted by TCS.
21. Attended and participated in CHASCON, 2011.
22. Attended two days FDP on Research and Data Analysis using SPSS organized by Department of Statistics, PU, Chandigarh from 16-17th December, 2010.
23. Attended short term course on “Web Based Content Development” at NITTTR from 23-11-2009 to 27-11-2009.
24. Attended one day workshop-cum-demo on Open Source Software Tools/Technologies organized by C-DAC Mohali on 31st July, 2009.
25. Attended two day workshop on “Advances in Information Security” at Punjab Engineering College, Chandigarh, from 24-25 February, 2009, organized by Cyber Security Research Centre in association with CDAC, Mumbai and Electronics city, Bangalore.
26. Attended Patent Awareness Workshop organized at UIET by CIIPP (Center of Industry Institute Partnership Program) in collaboration with patent information center and Punjab state council for science and technology, 2009.
27. Attended Microsoft .NET workshop from 29th January, 2009 to 1st February, 2009, held at UIET, PU, Chandigarh, in collaboration with Microsoft.
28. Attended Seminar on “Advances in Frontier Technologies” organized by UIET, 27th March, 2008.
29. Attended Programme on Soft Skills at UIET conducted by NITTTR. (18th and 20th Dec 2007).
30. Attended 10th Faculty Enablement Program, held at Infosys Technologies Ltd., Pune, from 04-06-2006 to 16-06-2006.
31. Attended Refresher Course from 6-12-2006 to 26-12-2006, organized by Academic Staff College, Panjab University, Chandigarh.
32. Attended Orientation Course from 2-12-2005 to 29-12-2005, organized by Academic Staff College, Panjab University, Chandigarh.

Subjects Taught (Under Graduate and Post Graduate Courses)

1. Database Management Systems
2. Computer Architecture and Organization
3. Software Engineering
4. Software Testing and Quality Assurance
5. Object Oriented Programming
6. Data Structures
7. Programming Fundamentals
8. Java Technologies
9. Computer Graphics
10. Network Security
11. Research Methodology
12. Cloud Computing
13. Smart Systems Design
14. Machine Learning and Computational Intelligence
15. Neural Networks

General Information

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Sarbjee Singh