

**Name:** Dr. Rohit Sachdeva  
**Designation:** Associate Professor  
**Specialization:** Computer Science, Image Processing  
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**Vidwan-ID : 254988**

## **Education**

**Master of Computer Applications (MCA) (2005: Sri Guru Harkrishan College of Management & Technology, Patiala)**

**M. Phil (Computer Science)(August 2010 Alagappa University (NAAC 'A Grade'), Karikudi)**

**Title of MPhil Thesis:** Genetic Integration Model

Supervisor Name: Gagandeep Singh Brar

**Ph. D. (Computer Science) (May 2017 PUNJABI UNIVERSITY, PATIALA)**

**Title of Ph. D Thesis:** Automated Recognition of Hand-Filled Forms in Devanagari Script

Supervisor Name: Dr Dharam Veer Sharma

Date of Enrollment 26-09-2010, Date of Registration: 29-03-2011, Date of Awarded: 11-05-2017

## **Professional Experience:**

Department of Computer Science, M.M. Modi College, Patiala, India (23 July, 2007 to till date)

Department of Computer Science, Mata Gujri College, Fatehgarh Sahib (June 2007- July 2007)

Department of Computer Science, Mata Gujri College, Fatehgarh Sahib (June 2006- March 2007)

Department of Computer Science, **Govt. M/p Sen. Sec. School**, Patiala (April 2005- May 2006)

## **Teaching Interests:**

Data Base Management System, Information Technology, Excel, C Language, Data structures, Computer Networks, Management Information System, Software Engineering and Operating System.

## **Research Interest:**

Computer Science and Image Processing

## **Professional Responsibility**

Member of various Departmental Committees (Canteen Committee, Admission Committee, Orientation

Committee, Discipline Committee, Refreshment and Hospitality Committee, Fine Arts Committee, General Purchase Committee etc.) constituted from time to time since 2007 at M.M. Modi College, Patiala.

Working as College Placement Officer from 2009 to till date.

Working as ANO NCC (Boys) from April 2019.

Nodal Officer Placement Cell/ Online Capacity Building Courses/Certificate Course (Computer Science)

## **Publications**

1. Published a paper "A Novel Virtual Machine Placement Algorithm Using an Energy-Aware Meta-Heuristics Approach", in Asian Journal of Computer Science and Technology, ISSN 2249-0701 (Print); 2583-7907 (Online), Vol 12, No 2, pp 31-38, 2023  
<https://doi.org/10.51983/ajcst-2023.12.2.3726>
2. Published a paper "An Optimal Cuckoo Search Algorithm For Vm Selection For Energy Efficient Migration In Cloud Computing", in Eur. Chem. Bull. ISSN 2063-5346 Vol12 issue 7, pp: 1596-1607, 2023.  
<https://10.48047/ecb/2023.12.7.1212023.14/06/2023>
3. Published a paper "Automatic Speech Recognition Systems: A Survey of Discriminative Techniques" in Multimedia Tools Applications, September 2022.  
<https://doi.org/10.1007/s11042-022-13645-x>
4. Published a paper "**Comparative Analysis Zoning, Distance Profile Feature And KNearest Neighbour For Handwritten Devanagari Script Recognition System**" in Webology ISSN: 1735-188X Vol 18 issue 3 pp: 1224-1244 May-June 2021.  
<https://www.webology.org/abstract.php?id=3695>.
5. Published a paper "An Integrated Technique for Underwater Image Enhancement: Colour Correction and Dehazing" in Advances in Mathematics: Scientific Journal ISSN 1857-8365 Vol 9 issue 6 pp: 3865-3877 July-2020  
<https://doi.org/10.37418/amsl.9.6.66>
6. Published a paper on "A Review of Virtual Machine Allocation and Migration Techniques in Cloud Computing" in International Journal of Advanced Science and Technology ISSN 2207-6360 Volume 28, Issue 19, pp: 894-903, Dec 2019.  
<http://sersc.org/journals/index.php/IJAST/article/view/2677>
7. Published a paper on "An Experimental Framework of Speaker Independent Speech Recognition System for Kashmiri Language (K-Asr) System Using Sphinx" in International Journal of Emerging Trends in Science and Technology ISSN 2348-9480 Volume 4, Issue 7, Page 5348-5352, July 2017.  
<http://ijetst.in/index.php/ijetst/article/view/1185>, 10.18535/ijetst/v4i7.07
8. Published a paper on "Comparative Analysis for Gurmukhi and Devanagari Script at Word Level" in International Journal of Engineering Technology and Computer Research (IJETCR) ISSN 2348-2117 Impact Factor 4.06 Volume 5, Issue 3, pp 49-54, June 2017.

- <https://ijetcr.org/index.php/ijetcr/article/view/377> (UGC APPROVED LIST)
9. Published a paper on “Punjabi Sign Recognition and Education System for Differently-able Persons” in International Journal of Advanced Research in Computer Science ISSN 0976-5697 Volume 8, Issue 4, pp 404-406, May 2017.  
<https://www.ijarcs.info/index.php/Ijarcs/issue/view/63> DOI: <https://doi.org/10.26483/ijarcs.v8i4.3788>
  10. Published a paper on “Data Extraction from Hand-filled Form using Form Template”, International Journal of Recent and Innovation Trends in Computing and Communication (IJRITCC), ISSN: 2321-8169, Impact Factor 5.075 Volume -3, Issue -8, pp.: 5311-5317, August 2015.  
<https://ijritcc.org/index.php/ijritcc/issue/view/65> doi:10.17762/ijritcc.v3i8.4836 (UGC APPROVED LIST)
  11. Published a paper on “A Brief Study of Feature Extraction and Classification Methods used for Character Recognition of Brahmi Northern Indian Script” in International Journal of IT, Engineering and Applied Sciences Research (IJEASR) ISSN 2319-4413 Impact Factor 5.267 Volume 4, Issue 2, pp.25-29, February 2015.  
<https://www.semanticscholar.org/paper/A-Brief-Study-of-Feature-Extraction-and-Methods-for-Sachdeva-Sharma/4d1a8d97094abbfb3fc5a06d49dc421011db5d74>  
(SCOUPUS)  
[Impact Factor \(2015\) \(linkedin.com\)](#)

Related

### Publication in Conference Proceedings

1. Published a paper “Energy Efficient Approach for Virtual Machine Placement Using Cuckoo Search”, in the proceedings of International Conference On Innovative Computing And Communication (ICICC 2023), (pp. 1-17). Singapore: Springer Nature Singapore. **ISBN 978-981-99-4071-4 October 26, 2023**  
[https://doi.org/10.1007/978-981-99-4071-4\\_1](https://doi.org/10.1007/978-981-99-4071-4_1)
2. Published a paper "An Effective Mechanism for Virtual Machine Placement using Cuckoo Search," in the proceedings of 2023 2nd Edition of IEEE Delhi Section Flagship Conference (DELCON), Rajpura, India, 2023 pp. 1-5, **Electronic ISBN: 979-8-3503-2206-4**  
**DOI: [10.1109/DELCON57910.2023.10127396](https://doi.org/10.1109/DELCON57910.2023.10127396)**
3. Published a paper "Implementation of a Pitch Enhancement Technique: Punjabi Automatic Speech Recognition (PASR)," in the proceedings of 10th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), 2022, pp. 1-4, **Electronic ISBN:978-1-6654-7433-7**  
<https://doi.org/10.1109/ICRITO56286.2022.9964671>  
[https://www.researchgate.net/publication/366125184\\_Implementation\\_of\\_a\\_Pitch\\_Enhancement\\_Technique\\_Punjabi\\_Automatic\\_Speech\\_Recognition\\_PASR](https://www.researchgate.net/publication/366125184_Implementation_of_a_Pitch_Enhancement_Technique_Punjabi_Automatic_Speech_Recognition_PASR)

4. Published a paper "End To End Deep Neural Network: An Approach To Clean Noisy Documents" in the proceedings of 10th International Conference on Reliability, Infocom Technologies and Optimization (Trends and Future Directions) (ICRITO), October 2022, pp. 1-6  
**Electronic ISBN:978-1-6654-7433-7**

<https://doi.org/10.1109/ICRITO56286.2022.9964743>

[https://www.researchgate.net/publication/366143298\\_End\\_to\\_End\\_Deep\\_Neural\\_Network\\_An\\_approach\\_to\\_clean\\_noisy\\_documents](https://www.researchgate.net/publication/366143298_End_to_End_Deep_Neural_Network_An_approach_to_clean_noisy_documents)

5. Published a paper "Virtual Machine Placement Using Machine Learning" in the proceedings of 2nd National Conference On Wireless Communication, Computing And Informatics (NCWCCI'22), March 5, 2022 pp. – 66-72

[Proceedings-of-2ND-NATIONAL-CONFERENCE-ON-WIRELESS-COMMUNICATION-COMPUTING-AND-INFORMATICS-NCWCCI22.pdf \(researchgate.net\)](#)

6. Published a paper "An Optimized Approach for Underwater Image Dehazing and Colour Correction" in the proceedings of International Conference on "Innovative Computing & Communications (ICICC 2020) published in SSRN, Elsevier, April 1, 2020 Available at SSRN 3565932

<https://ssrn.com/abstract=3565932> or <https://dx.doi.org/10.2139/ssrn.3565932>

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3565932](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3565932)

7. Published a paper on "Analytical Study of Virtual Machine Allocation Techniques in Cloud Computing Using Machine Learning" in the Proceedings of the International Conference on Innovative Computing & Communications (ICICCR) 2020, March 30, 2020 Available at SSRN 3564362

[Available at SSRN: https://ssrn.com/abstract=3564362](https://ssrn.com/abstract=3564362)

[or http://dx.doi.org/10.2139/ssrn.3564362](http://dx.doi.org/10.2139/ssrn.3564362)

8. Published a Paper "A study of Ubiquitous Algorithms of Information Retrieval Systems" in UGC Sponsored National Conference Impact of IT on Society-Emerging Trends & Issues held at DAV College Amritsar in 28 February- 01 March, 2009. (offline)

### **Book/Book chapter**

1. Chapter "Latest Trends in Deep Learning for Automatic Speech Recognition System" in book titled as "Artificial Intelligence and Speech Technology" ISBN : 978-3-030-95710-0 , as Co-Author Springer International Publishing JAN 2022.

<https://doi.org/10.1007/978-3-030-95711-7>

2. Chapter “Automatic Speech Recognition in English Language: A Review” in book titled as Deep Learning Approaches for Spoken and Natural Language Processing.” Signals and Communication Technology. Springer, Cham. January 2022 Online ISBN 978-3-030-79778-2 [https://doi.org/10.1007/978-3-030-79778-2\\_8](https://doi.org/10.1007/978-3-030-79778-2_8)
3. Chapter “Analytical Study of Virtual Machine Migration Techniques in Cloud Computing” in book titled as “Soft Computing for Intelligent Systems” ISBN : 978-981-16-1047-9, 506406\_1\_En (34) , as Co-Author in Springer, Singapore, June 2021.  
[https://doi.org/10.1007/978-981-16-1048-6\\_34](https://doi.org/10.1007/978-981-16-1048-6_34)
4. Published book “Analytical and Statistical Data Mining: Classification Trees” as Co-Author Lambert Academic Publishing in 2021 (First Edition) ISBN 978-620-3-85402-2 <https://www.weltbild.ch/artikel/buch/analytical-and-statistical-data-mining-classification-trees-35763180-1>
5. Chapter “Classification Approaches For Automatic Speech Recognition System” in book titled as “Artificial Intelligence and Speech Technology” ISBN : 9781003150664 , as Co-Author Routledge Taylor & Francis Group, London and New York June 2021.  
<https://doi.org/10.1201/9781003150664>
6. Chapter “A Study of Virtual Machine Migration Techniques in Cloud Computing” in book titled as “Wireless Communications and Computing” ISBN : 978-93-90514-76-0, as Co-Author Twentyfirst Century Publications In association with BOOKMAN November 2020.  
[A Study of Virtual Machine Migration Techniques in Cloud Computing | Request PDF \(researchgate.net\)](#)
7. Chapter “A Study of Virtual Machine Allocation And Migration Techniques Cloud Computing” in book titled as “Wireless Communications and Mathematics” ISBN : 979-93-89673-30-2, as Co-Author Twentyfirst Century Publications 2019  
[A Study of Virtual Machine Allocation And Migration Techniques Cloud Computing | Request PDF \(researchgate.net\)](#)
8. One article Digital India and Youth (pp 93-96) in Yuva book January-2019 ISBN-9789382376828, ZOHRA PUBLICATION
9. “Computer Application for Business” in 2019 New Edition ISBN 978-93-5359-620-0, as Co-Author Kalyani Publisher.
10. “Computerised Accounting” in 2018 (First Edition) ISBN 978-93-272-9357-9, as co-Author Kalyani Publisher for Telagana Universities and allied course of other Universities.

11. “Tally with GST Applications” in 2017 First Edition) ISBN 978-93-272-8651-9, as co-Author Kalyani Publisher for Andhra Pradesh.
12. Chapter naming “Word Segmentation of Handwritten Text in Devanagari Script - Issues and Problems” in book titled as COMMUNE 2015 ISBN: 978-93-82288-54-1 University of Kashmir, Hazratbal, Srinagar March 2015
13. “Computer Based Accounting System” as Co-Author in 2015 (First Edition) ISBN 93-84367-88-5 Sharma Publication.
14. “Operating System” as Co-Author in 2013(Second Edition) ISBN 978-93-80144-18-4 from Twentyfirst Century Publications.
15. “Office Automation” as Co-Author in 2012(First Edition) ISBN 978-93-80144-91-7 from Twentyfirst Century Publications
16. “Concepts of Operating System” as Co-Author in 2010(First Edition) ISBN No : 978-93-80144-19-1 from Twentyfirst Century Publications
17. “Data Structures Using C & C++” as Co-Author in 2009(First Edition) ISBN 978-93-80144-12-2 from Twenty first Century Publications
18. “Combined Approach of Software Engineering with MIS” as Co-Author in 2008(First Edition) ISBN: 81-904286-6-7 from Twentyfirst Century Publications
19. “Computer Education” as Co-Author in 2006 (First Edition) from CBS Publishers.

## **Conference / Seminars**

### **A) Resource Person / Invited Lectures:**

- **Expert Lecture** at Pyramid College of Business & Technology of Business & Technology, Phagwara on March 28, 2024.
- **Keynote Speaker** at International Conference on Interdisciplinary Research and Socio-Economic Development A Convergence of Technology, Management and Social Sciences (IRSED'-24) organized by RESEARCH EDUCATION SOLUTIONS in association with Oxford College of Management on March 16, 2024.
- **Resource Person** in one day workshop on “**Youth Empowerment through skill Development**” organized by Centre of Research in Rural and Industrial Development (CRRID), Chandigarh held on February 21,2024.
- **Resource Person** in one day workshop on “**Microsoft Excel**” organized by Govt. State College of Education, Patiala held on February 14,2024.

- **Session Chair** at International Conference on Sustainable Growth and Development through Emerging Technology & Innovations (ICSGD' 2024) organized by RESEARCH EDUCATION SOLUTIONS in association with NIIS Institute of Business Administration on January 27, 2024.
- **Session Chair** at National Seminar on Higher Education in India; A Road Map of Future Generations at Asian Group of Colleges, Patiala on January 20, 2024.
- **Guest Lecture** on “**Operating System**”, at D M College, Moga on March 11,2023.
- **Keynote Speaker** in the International Conference on Innovation in Technology, Agriculture, Management and Social Science-2023 on March 05, 2023.
- **Session Chair** at National Conference on Emerging Trends in Commerce, Business Management, Technology and Agriculture in Changing Economic Order on March 04, 2023.
- **Chair Person** in KSTA sponsored One Day National Conference on “Through the Instruments” organized by SSMSAS&CC, Athani held on December 22, 2022.
- **Guest Lecture** on “**Digitalization : Emerging Era in Indian Economy**”, at Swami Satyanand College of Management & Technology, Amritsar on February 28,2022.
- **Resource Person in** One day National Workshop on “**ICT in Teaching Learning Process**”, organized by Ch Ishwar Singh Kanya Mahavidhyala, Fatehpur- Pundri on January 29,2022
- **Session Chair** at International Conference on Contemporary Issues in Accounting, Finance and Banking December 27, 2020.
- **Resource Person in the 7 Days National Workshop** on “**Effective Online Teaching and Blended Learning in Emerging Scenario**” organized by School of Management Studies, Punjabi University, Patiala from September 5-11, 2020.
- **Session Chair** at One Day National Seminar on Covid 19 Rebooting Industry & Commerce July 18, 2020.
- **Resource Person** in the 7 days International Faculty Development Program on “**Innovative Methods for Virtual Classroom Teaching: A Road to MOOCs**” organized by PCMA from July 10-16, 2020
- **Session Chair** at One Day National Seminar on Higher Education for Development & Role of Teachers July 16, 2017

## **B) Paper presented**

1. Paper Presented on “Energy Efficient Approach For Virtual Machine Placement Using Cuckoo Search” in the Conference “6th International Conference on Innovative Computing and Communication (ICICC-2023),” organized by Shaheed Sukhdev College of Business Studies, University of Delhi, New Delhi, India in association with the National Institute of Technology Patna, India and the University of Valladolid, Spain on February 17-18, 2023
2. Paper Presented on “Classification Approaches for Automatic Speech Recognition System” in the Conference on “2ND INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE AND SPEECH TECHNOLOGY” at Indira Gandhi Delhi Technical University for Women, Delhi November 19-20, 2020
3. Paper Presented on Electronic Waste Management – Strategies, Effects, and Control in UGC sponsored 3rd National Conference on Innovations in Bioscience and Technology, (NCIBT-2020) at Multani Mal Modi College, Patiala March 7, 2020.
4. Paper Presented on the Role of ICT in the Development of Entrepreneurship in India in National Seminar on “Entrepreneurship Development in Current Indian Business Scenario” at Punjabi University, Patiala January 31 & February 01, 2020
5. Paper Presented on An Optimized Approach for Underwater Image Dehazing and Colour Correction in International Conference on “Intelligent Communication and Computational Research (ICICCR 2020)” at PIT College, Rajpura January 25, 2020
6. Paper Presented on Analytical study of Virtual Machine Allocation Techniques in Cloud Computing using Machine Learning in International Conference on “Intelligent Communication and Computational Research (ICICCR 2020)” at PIT College, Rajpura January 25, 2020
7. Paper Presented on the Role of ICT in the development of Trade in India in Conference on “Impact of Global Economic Crisis on the Future of Commerce & Business” at Mata Gujri College, Fatehgarh Sahib January 24, 2020
8. Paper Presented on A Review of Virtual Machine Allocation and Migration in Cloud Computing in 3rd International Conference on “Innovations in Computing” at CGC College of Engineering, Mohali December 12-13, 2019
9. Paper Presented on Analysis of various Image Dehazing and Colour Correction Techniques for Underwater Image Enhancement in UGC-sponsored 10th National Conference on Recent Advances in Chemical, Biological And Environmental Sciences, (RACES-2019) at Multani Mal Modi College, Patiala 11-12 April, 2019.



10. Paper Presented on the Development of Mathematical Tools for Image Block Representation in One Day National Seminar on Usage and Prospects of Mathematics at Multani Mal Modi College, Patiala 07 March, 2019
11. Paper Presented on Analysis of Modern Filtering Methods for Improving the Quality of Image Captured Underwater in XVII International Conference on “Recent Trends in Engineering, Applied Science and Management” at Institute of Electronics and Telecommunication Engineers, Chandigarh 24 June, 2018
12. Paper Presented on Threat of Electronic Waste in UGC sponsored 9th National Conference on Recent Advances in Chemical, Biological and Environmental Sciences, (RACES-2018) at Multani Mal Modi College, Patiala 9-10 February, 2018
13. Paper Presented on Study of Problems of word segmentation of Handwritten text in Devanagari Script in National Conference on the Advances in Computer Science & Information Technologies (NCACSIT-2017) at Savitribai Phule Pune University, Pune 29-30 December, 2017
14. Paper Presented on Punjabi Sign Recognition and Education System for Differently-able Persons in International National Conference “Emerging Trends in Engineering and Technology” at Sant Baba Bhag Singh University, Jalandhar 21-22 April, 2017.
15. Paper Presented on Role of ICT in Cleanliness Drive in National Seminar on “Swachh Bharat Abhiyan” at S. A. Jain (PG) College, Ambala City 20 February, 2017.
16. Paper Presented on Role of ICT in Spreading Legal Awareness in National Seminar on “Legal Literacy in Indian Perspective” at S. A. Jain (PG) College, Ambala City 17 February, 2017.
17. Paper Presented on Use of ICT Tools in E-Governance in “National Symposium on Emerging Trends in Biological Sciences” at Multani Mal Modi College, Patiala on 12 November, 2016
18. Paper Presented on E-Governance Tool for Empowering Weaker Sections in International Conference “Reforms in the 21st Century: Development & Prospects” at Punjabi University, Patiala on 10 October, 2016.
19. Paper Presented on Use of ICT Tools in E-Governance in National Seminar on “Governance in the 21st Century” at Punjabi University, Patiala 30 March, 2016.
20. Paper Presented on Understanding the Role of Computer in Mathematical Problem Solving in Seminar on “Latest Trends in Algebra and Analysis” at Guru Nanak Khalsa College, Karnal 19 March, 2016.

21. Paper Presented on Role of ICT in Spreading Awareness on Protecting the Girl Child in National Seminar on “Beti Bachao- Beti Padhao” at S. A. Jain (PG) College, Ambala City 12 March, 2016
22. Paper Presented on Facebook: a powerful tool of Marketing in National Seminar on “Relationship Marketing Through Social Networking Sites” at Kamla Lohtia Santan Dharam College, Ludhiana 05 March, 2016.
23. Paper Presented on Challenges of E-Waste Management in India in “Recent Advances in Chemical, Biological And Environmental Sciences”, RACES at Multani Mal Modi College, Patiala 19-20 February -2016
24. Paper presented on Electronic Waste Environment Issue and It’s Management in National Seminar on “Chemistry of Industrial Globalization, Environmental, Pollution and Its Chemical-Biological Significance” at Govt. Post Graduate College, Ambala Cantt. 11 February, 2016.
25. Paper presented on Customer Preferences for Online Shopping in “Contemporary Issues and Challenges in Business Environment” at Govt. Post Graduate College, Ambala Cantt. 6 February, 2016.
26. Paper presented on Application of Computer in Business Decision Making in 1st International Conference on “Emerging Trends in Commerce, Management and Environmental Sciences” at Govt. Mohindra College, Patiala 15-16 January, 2016.
27. Paper presented on MS Excel - Powerful tool for Research Analysis in 2nd Annual Conference on “Quality Research: Issues and Challenges” at DAV College of Education, Hoshiarpur 24 December, 2015.
28. Paper presented on Information Technology – Powerful tool in Skill Development of the Country in National Conference on “Skill Development in Higher Education” at AS College, Khanna 22 August, 2015 (Absentia).
29. Paper presented on Women Empowerment through E-Governance in National Conference on “Contemporary Social Issues” at MMU, Mullana 31 March 2015.
30. Paper presented on Innovative uses of Excel in Linear Algebra in National Conference on “Innovative Trends in Mathematics Sciences” at MMU, Mullana 30 March, 2015.
31. Paper presented on Consumer Perception towards increasing trends of Online Shopping in National Conference on “Opportunities and Challenges for Business Practices to Realize the concept of Make in India at CGC, Jhanjeri 27 March, 2015.

32. Paper presented on Word Segmentation of Handwritten Text in Devanagari Script - Issues and Problems in International Conference on Advances in Computer, Communication and Electronic Engineering (COMMUNE 2015) at University of Kashmir, Srinagar 16-18 March 2015.
33. Paper presented on Analysis of Consumer Behavior for Online Shopping in National Seminar on “Advancement in Information Technology and Innovations in Management at SCD Government College, Ludhiana 24 February, 2015.
34. Paper Presented on E-Wastage: A Big Challenge to Environmental Protection in Seminar on India: An Emerging Opportunity at Kamla Lohtia Santan Dharam College, Ludhiana 14-February, 2015.
35. Paper Presented on Green Computing: Emergent field to develop eco-friendly IT in Recent Advances in Chemical, Biological And Environmental Sciences, RACES at Multani Mal Modi College, Patiala 30-31 January, 2015.
36. Paper Presented on Pattern Recognition: An Emerging field of Artificial Intelligence in International Business Conference at M. M. Modi College, Patiala (07 November 2014).
37. Paper Presented on Issue and Challenges in recognition of Devanagari Script in the ICCR National Conference on “Research Issues in Contemporary India at Punjabi University, Patiala (25 May, 2014).
38. Paper Presented on A Study in the area of Artificial Intelligence & Software Engineering- An Integrated Approach in 2nd National Conference on Engineering applications -2014 at St Soldier Institute of Engg Tech & Management, Jalandhar (05 April, 2014).
39. National Conference on Cyber Pollution – Problem and Remedy at General Shivdev Singh Diwan Gurbachan Singh Khalsa College, Patiala (04 April, 2014)

### **C) Attended**

1. Participated in online National Webinar on Impact of e-commerce on small business during covid -19 pandemic” organized by the Department of Commerce, Govt. Pt. Shyamacharan Shukla College Dharsiwa, Raipur (C.G.) held on June 08,2021.
2. Participated in the International Webinar on “World Environment Day” with a mission “ECOLOGY FIRST, ECONOMY NEXT” organized by “JEEVAN SHAKTI” ECO-CLUB in collaboration with IQAC Gopichand Arya Mahila College, Abohar held on June 5,2021

3. Attended Lecture on Research in Higher Education in the Perspective of NEP 2020 in Leader'S'peak Lecture Series organized through Online Mode by Punjabi University, Patiala held on May 29, 2021
4. Participated in One Day National Webinar on "The Critical Role of Biodiversity in Sustainable Development" sponsored by Punjab Biodiversity Board, Chandigarh, Govt. of India. organised by Science Department held on May 20, 2021
5. Participated in Online National Webinar on the Theme "SOLID WASTE MANAGEMENT" organized by Swachhta Club, Multani Mal Modi College, Patiala held on November 10,2020.
6. Participated in Online Lecture on the Theme "COVID-19 AND THE STATE OF STATE FINANCES" organized by Department of Social Sciences, Multani Mal Modi College, Patiala held on November 10,2020
7. Participated in the National Symposium on "Roadmap for Implementation of New Education Policy, 2020: Rhetoric to Practice" organized by CTEF in collaboration with October 3,2020
8. Participated Online National Seminar on the Theme "Religious Tolerance and National Integration: Expanding Mental Boundaries" organized by Department of Psychology, Punjabi University, Patiala held on August 21, 2020
9. Participated and organized "National Conclave cum Conference National Education Policy-2020" organized by PCMA in association with SCD Government College, Ludhiana and Sri Aurobindo College of Commerce & Management, Ludhiana held on August 16-18, 2020
10. Participated and organized Webinar on National Capability Enhancement Conference: Education For Meaningful Life Part-9" organized by PCMA held on August 08, 2020
11. Participated and organized Webinar on National Capability Enhancement Conference: Education For Meaningful Life Part-8" organized by PCMA held on July 31, 2020
12. Participated and organized Webinar on National Capability Enhancement Conference: Education For Meaningful Life Part-7" organized by PCMA held on July 23, 2020
13. Participated and organized Webinar on National Capability Enhancement Conference: Education For Meaningful Life Part-6" organized by PCMA held on July 20, 2020
14. Participated National Seminar on "Covid 19- Rebooting Industry and Commerce" organized by PCMA in association with Hindu College, Kapurthala on July 18, 2020.
15. Participated and organized one day National Webinar on "The Social and Religious Context of the Martyrdom of Sri Guru Teg Bahadur Ji" Organized by Multani Mal Modi College, Patiala on July 16, 2020.

16. Participated and organized Webinar on National Capability Enhancement Conference :Education For Meaningful Life Part-5” organized by PCMA held on July 9, 2020.
17. Participated “Virtual Conference on Unlocking of Higher Education Institutions” organized by Sri Aurobindo College of Commerce & Management, Ludhiana in association with PCMA held on July 7, 2020
18. Participated and organized Webinar on National Capability Enhancement Conference :Education For Meaningful Life Part-4” organized by PCMA held on July 4, 2020
19. Participated and organized Webinar on National Capability Enhancement Conference :Education For Meaningful Life Part-3” organized by PCMA held on July 2, 2020
20. Participated and organized Webinar on National Capability Enhancement Conference :Education For Meaningful Life Part-2” organized by PCMA held on June 30, 2020
21. Participated Webinar on “Teacher Education in Post-COVID Era: Some Reflections” Organized by Multani Mal Modi College, on June, 25 2020
22. Participated Webinar on “NOVA CORONA AND NOVA CHALLENGES: LIFE AHEAD WITH COVID-19” Organized by Sri Guru Gobind Singh College, Chandigarh on June, 03 2020
23. Participated and Organizing Webinar on “Online International Seminar on Effective Transitioning Traditional (T) Class to Virtual (V) Class Teaching” Organized by PCMA on June, 02 2020
24. Participated International Webinar on “Reinvigorating Mental Health : Amid Pandemic Challenge” Organized by Arya Girls College, Ambala Cantt. May , 30 2020
25. Participated and organized one day International Webinar on “Post COVID Challenges Before Indian Education System” Organized by Multani Mal Modi College, Patiala held on May, 29 2020
26. Participated Webinar on “5G Technology and it's Applications” Organized by Sri Vasavi Institute of Engineering & Technology held on May, 28 2020
27. Participated Webinar on “Me for My Nation” organized by J.Z. Shah Arts and H.P. Desai commerce College Amroli Surat held on May 26, 2020
28. Participated Webinar on “Managing Stress amid COVID 19” organized by Edurutes on May 25, 2020.
29. Participated National Webinar on “COVID-19: Lessons for Educators” organized by PCMA on May 25, 2020
30. Participated Webinar on “E-Learning/ICT Based Education” organized by Jawaharlal Institute of Technology, Borawan (M.P.) held on May 24, 2020

31. Participated National Level Webinar on "Opportunities & Challenges in Financial Sector After Lock-down" organized by South Gujarat Pradhyapak Pushtak Prakashan Sahkari Mandali Ltd. Surat held on May 23, 2020
32. Participated in Webinar on "NEW EDUCATION POLICY POST COVID-19" organized by Shri Shivaji Education Society Amravati's Science College Congress Nagar, Nagpur on May 20, 2020
33. Participated in the Webinar on "MAKE INDIA" organized by J.Z. Shah Arts and H.P. Desai commerce College Amroli Surat held on May 14, 2020.
34. Attended in the Webinar on "Advertising Industry: Past, Present and Future" organized by Atma Ram Sanatan Dharma College, Delhi held on 09 May, 2020.
35. Attended National Seminar on Contemporary Issues in Education at Panjab University, Chandigarh on 10, July 2016.
36. Attended National Conference on "Changing Paradigm of Copyright, Patent and Other IPR Issues In India" at MMU, Mullana 25,26-April, 2015
37. Attended the Three Days International Conference on "Recent Advances and future Trends in IT(iRAFIT-2012) at Punjabi University, Patiala during 21-23, March- 2012
38. Attended the Three Days International Conference on "Information Systems for Indian Languages (ICISIL 2011) at Punjabi University, Patiala 9-11, March-2011.
39. Attended the One Day National Seminar on "RAFIP 2010(Recent Advances and Future Trends in Digital Image Processing" held at Punjabi University, Patiala on 30-March-2010.
40. Attended the One Day National Seminar "Techvision -2020" held at Desh Bhagat Group of Institutes on 31-Januaray-2009.

### **Ph. D. Students**

1. Bhavya: **(On-going)** "DEVELOPMENT OF AN EFFICIENT MAIZE PLANT LEAF DISEASE DETECTION SYSTEM USING DEEP LEARNING" (Dec 27, 2022)
2. Neha Kumari (On-going) "A HIGH PERFORMANCE FRAMEWORK FOR SECURE INTEGRATION OF IoT AND CLOUD COMPUTING" (Nov 25, 2021)
3. Loveleena Mukhija **(On-going)** "DEVELOPMENT OF AN EFFICIENT TECHNIQUE FOR VIRTUAL MACHINE ALLOCATION AND MIGRATION USING MACHINE LEARNING" (Aug 23, 2019)
4. Sukh Sehaj Singh **(On-going)** "DEVELOPMENT OF AN EFFICIENT TECHNIQUE FOR UNDERWATER IMAGE DEHAZING AND COLOUR CORRECTION" (Mar 26, 2019)

5. Amrit Preet Kaur: **(On-going)** “DISCRIMINATIVE TRAINING BASED IMPROVED AUTOMATIC SPEECH RECOGNITION FOR PUNJABI” (Feb 27, 2019).

### **Workshops and Training courses**

1. Five Days Faculty Development Programme on “Artificial Intelligence” under TechSaksham Certified by Microsoft India & SAP India led Faculty Development Program from 28-03-2022 to 01-04-2022.
2. Five Days International Faculty Development Programme on “Trends in Technological Intellect” Organized by Department of Computer Science, Bon Secours College for Women, Thanjavur from 08-02-2022 to 12-02-2022.
3. Faculty Development Programme on ‘Research Methodology’ organized by IQAC Multani Mal Modi College, Patiala from January 12-19, 2022.
4. 7 Days Virtual National Level Capacity Building Program on “Integration of Pedagogy & Technology in Teaching-Learning organized by Multani Mal Modi College, Patiala in collaboration with Council for Teacher Education Foundation from July 13-19, 2021.
5. ‘MERAKI’ Three Days Open Online Workshop on ART, MUSIC & MEDITATION organized by Department of Fine Arts & Music Gopichand Arya Mahila College, Abohar held on June 25-27, 2021.
6. 5 Days online International workshop on “Creating Interactive E-Assessment Tools”, organized by Universal Teacher Academy held on June 14-18, 2021
7. 5 Days online International workshop on “Creating Interactive E-Resources & Gamification”, organized by Universal Teacher Academy held on May 17-21, 2021
8. 7 Days National Workshop on “Effective Online Teaching and Blended Learning in Emerging Scenario” organized by School of Management Studies, Punjabi University, Patiala from September 5-11, 2020.
9. 7 Days International Faculty Development Program on “Innovative Methods for Virtual Classroom Teaching: A Road to MOOCs” organized by PCMA from July 10-16, 2020.
10. 7 Days Online Faculty Development Program on “Online Teaching Learning Practices: Challenges & Solutions” organized by SGTB Khalsa College, Sri Anandpur Sahib from July 7-13, 2020.
11. 7 Days Faculty Development Program on “RESEARCH METHODOLOGY FOR SOCIAL SCIENCES” organized by Multani Mal Modi College, Patiala in CTEF from June 20-26, 2020.

- 12.7 Days National Level Workshop on “Research Methodology” organized by PCMA in Collaboration KCW, Ludhiana from June 4-10, 2020.
13. One Week Faculty Development Programme on “ICT based tools and its applications in teaching learning process” organized by BSVS Educational Learning Centre, Nagpur held during 27th May - 02nd June 2020.
14. Online FDP on IPR organized by S. A. Jain College, Ambala City May 19, 2020.
15. Participated in One day virtual workshop on “Creation and Use of HTML based Quiz for E-content and Open Educational Resource (OER) Development” organized by BSVS Educational Learning Centre, Nagpur held on May 18, 2020.
16. Participated in One day virtual workshop on “How to create and conduct ICT based classroom quizzes?” organized by BSVS Educational Learning Centre, Nagpur held on May 13, 2020.
17. Completed E-Content Development Course organized by IIOR Research on May 12, 2020.
18. Participated and completed 5 Days Online Faculty Development Program (FDP) on R Programming organized by Indo Global Group of Colleges, New Chandigarh in association with IIT Bombay Spoken Tutorial (An Initiative of National Mission on Education through ICT, MHRD, Govt. of India) from 27th April to 1st May 2020.
19. Attended Short/Course/ FDP on Machine Learning using Python organized by IIT, Roorkee April 23, 2020 to May 1, 2020.
20. Attended Online Short-Term Training Programme “I5 – Innovation, Incubation, Invention & Intellectual Property” organized by S. A. College of Arts & Science from April 26, 2020 to May 9, 2020.
21. Attended Online Refresher Program on “MBA-PPC (Management Business Administration – Present & Post Crisis) organized by S. A. College of Arts & Science from April 14, 2020 to May 4, 2020.
22. Attended UGC sponsored One-week Faculty Development Programme at Multani Mal Modi College, Patiala 17ION -22 July, 2019.
23. Attended UGC sponsored One-week Faculty Development Programme at Multani Mal Modi College, Patiala 20-26 July, 2018.
24. Attended UGC sponsored 7 Day Faculty Development Programme at Multani Mal Modi College, Patiala 9-16 January, 2017.
25. Attended Refresher Course from 19 November, 2016 to 10 December, 2016 with A grade from Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan Sonipat
26. Attended 7 Day Faculty Development Programme at Multani Mal Modi College, Patiala 9-15 July,



2015.

27. Attended 7 Day Workshop on Leadership & Advocacy at Multani Mal Modi College, Patiala 25-31 May, 2015
28. Attended the 15 days Faculty Development Program at Multani Mal Modi College, Patiala from 01-July-2014 to 15-July-2014.
29. Attended the UGC Sponsored one week National workshop on “Multilingual Technologies (NWMLT-2013)” held at Punjabi University, Patiala from 11-17, November 2013.
30. Attended the UGC Sponsored one week workshop on “Digital Image Processing Using MATLAB” held at Punjabi University, Patiala from 29 November to 05 December 2012.
31. Attended the One Day Long Technical workshop “ARUBA NETWORKS MOBILITY SOLUTIONS” held at Punjabi University, Patiala on 9-November-2012.
32. Attended the Refresher Course from 14-May-2012 to 02-June-2012 with A grade from Punjabi University, Patiala
33. Attended the one day workshop “National e-Governance Plan(NeGP)” held at Punjabi University, Patiala on 22-December-2011.
34. Attended the Ten Days Workshop “Train the Trainer Program as part of Project Gensis”, conducted by Infosys BPO Ltd. at Chandigarh, 22-31, August 2011.
35. Attended the One Day workshop “D-Link Technical Workshop” held at Punjabi University, Patiala on 3-Dec-2010.
36. Attended Orientation Course from 18-June-2010 to 15-July-2010 with A grade from Punjabi University, Patiala
37. Attended Three Days “Faculty Development Programme on DB2” at Desh Bhagat College, Mandi Gobindgarh from 11-June-2007 to 13-June-2007.

### **Achievements, Awards and Recognitions**

- **External Evaluator and Paper setter:**
  - **Mata Gujri College, Fatehgarh Sahib**
  - **Khalsa College, Patiala**
  - **Kanya Maha Vidyalaya, Jalandhar**
  - **Maharaja Bhupinder Singh Punjab Sports University, Patiala**
  - **Punjabi University, Patiala.**

- **Commissioned as Lieutenant in the NCC on 23rd October 2021.**
- **Award for Digital Learning Innovation Award 2024 January 27, 2024 by RESEARCH EDUCATION SOLUTIONS in association with NIIS Institute of Business Administration**
- **Award for Excellence and Innovation in Online Education 2023 on October 14, 2023 by RESEARCH EDUCATION SOLUTIONS & Institute of Management Bhubaneswar**
- **Technological Innovation Award by RESEARCH EDUCATION SOLUTIONS & SIDVI FOUNDATION on January 08, 2023**
- **BEST FACULTY AWARD 2022 by RANSOM EDUCATIONAL AND SOCIAL TRUST, EDUCATION EXCELLENCE AWARD on December 27, 2022**
- **IRSD International Preeminent Innovative Educators Award 2022 on 30-9-2022**
- **Best Teacher Award 2022 (Higher Educational Institutions Level) by InSc Institute of Scholars on 19<sup>th</sup> July 2022**
- **I2OR International Award 2021 Teaching Excellence on the occasion of World Teacher's Day on 5th October 2021.**
- **EXEMPLARY SERVICE AWARD by BHAI KANHIYA INSTITUTE OF MEDICAL STUDIES on the occasion of National Teacher's Day dated 16-September-2021**

### **Resources Development**

- Video Lecture on Process Management available on Modi College YouTube Channel
- Video Lecture on CPU Scheduling available on Modi College YouTube Channel
- Video Lecture on Computer Characteristics available on <https://youtu.be/i8WmgrXssiM>
- Video Lecture on Block Diagram of Computer available on <https://youtu.be/b6sPjGkZVHc>
- Video Lecture on Page Replacement Algorithm available on [https://youtu.be/IL-ZRMvh\\_0Y](https://youtu.be/IL-ZRMvh_0Y)

- Video Lecture on Advance settings of Zoom available on <https://youtu.be/BapBhxIYUk8>
- Video Lecture on how to join Zoom class available on <https://youtu.be/rnC67LFm178>
- Video Lecture on how to join Google Classroom available on [https://youtu.be/ldaKBehYp\\_o](https://youtu.be/ldaKBehYp_o)
- Video Lecture on how to upload on assignment in Google Classroom available on <https://youtu.be/v5jAK89b6QQ>
- Video Lecture on how to scan Answer sheet as pdf file available on <https://youtu.be/qhXo3OuquP8>
- Video Lecture on how to rename Answer sheet as pdf file as university roll no available on <https://youtu.be/6Wi6C4wG5Y0>
- Video Lecture on how to upload Answer sheet pdf file on Google form available on <https://youtu.be/nOHp73y89kU>
- Video Lecture on how to collect answer sheet with google form available on <https://youtu.be/ZdBuRJNWY2g>
- Video Lecture on how to change ownership of google form available on <https://youtu.be/Ey7VcAZtVoU>
- Video Lecture on how to auto generate result of Google Quiz available on <https://youtu.be/UJ9gux5v3jg>
- Video Lecture on how to make Google form available on <https://youtu.be/u2R9upYIshw>
- PPT on process Management <https://bit.ly/2weq4RF>
- PPT on Threads <http://bit.ly/3800knx>
- PPT on Deadlocks <https://bit.ly/2wPaYCx>
- PPT on Device Management <http://bit.ly/2TmBSsX>

## **Membership**

- **Life member of Indian Council of Contemporary Researchers (ICCR).**
- **Life member of PCMA**
- **Joint Secretary of PCMA July-2020**
- **ASSISTANT EDITOR of PCMA-Journal of Business Dec-2020**
- **Life member of International Institute of Organized Research I2OR JAN-2021**
- **Premium Member of INSC Membership & Chapter.**

**(ROHIT SACHDEVA)**