Name: Dr. Rohit Sachdeva

Designation: Assistant Professor

Specialization: Computer Science, Image Processing

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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)

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

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

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, 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 (Admission Committee, Orientation Committee, Discipline Committee, Hospitality, Anti-Ragging 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 Care Taker Officer NCC (Boys) from April 2019.

Publications

1. 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)

2. 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 3.084 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

3. 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, Volume -3, Issue -8, pp.: 5311-5317, August 2015. https://ijritcc.org/index.php/ijritcc/issue/view/65

4. 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

5. 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

6. 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 2348-948 Volume 4, Issue 7, July 2017 http://ijetst.in/index.php/ijetst/article/view/1185

7. 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

Book/Book chapter

1. "Computer Education" as Co-Author in 2006 (First Edition) ISBN 81-904286-6-7 from CBS Publishers.

2. "Combined Approach of Software Engineering with MIS" as Co-Author in 2008(First Edition) ISBN: 81-904286-6-7 from Twentyfirst Century Publications

3. "Data Structures Using C & C++" as Co-Author in 2009(First Edition) ISBN 978-93-80144-12-2 from Twentyfirst Century Publications

4. "Concepts of Operating System" as Co-Author in 2010(First Edition) ISBN No : 978-93-80144-19-1 from Twentyfirst Century Publications

5. "Office Automation" as Co-Author in 2012(First Edition) ISBN 978-93-80144-91-7 from Twentyfirst Century Publications

6. "Operating System" as Co-Author in 2013(Second Edition) ISBN 978-93-80144-18-4 from

Twentyfirst Century Publications.

7. "Computer Based Accounting System" as Co-Author in 2015 (First Edition) ISBN 93-84367-88-5 Sharma Publication.

8. "Tally with GST Applications" in 2017 First Edition) ISBN 978-93-272-8651-9, as co-Author Kalyani Publisher for Andhra Pradesh.

9. "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.

10. "Computer Application for Business" in 2019 New Edition ISBN 978-93-5359-620-0, as Co-Author Kalyani Publisher.

11. One article Digital India and Youth (pp 93-96) in Yuva book January-2019 ISBN-9789382376828

Conference / Seminars
A) Resource Person / Invited Lectures:
Session Chair at One Day National Seminar on Higher Education for Development & Role of Teachers 16 July 2017

B) Paper presented
1. Paper Presented on Social Networking: Enjoy and Act Safe in National Conference on Cyber Pollution – Problem and Remedy at General Shivdev Singh Diwan Gurbachan Singh Khalsa College, Patiala (04 April, 2014)

2. 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).

3. Paper Presented on Pattern Recognition: An Emerging field of Artificial Intelligence in International Business Conference at M. M. Modi Colelge, Patiala (07 November, 2014).

4. Paper Presented on Green Computing: Emergant field to develop eco-friendly IT in Recent Advances in Chemical, Biogical And Environmental Sciences, RACES at Multani Mal Modi College, Patiala 30-31 January, 2015.

5. 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.

6. 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.

7. Paper presented and Published 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.

8. 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.

9. 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..

10. Paper presented on Women Empowerment through E-Governance in National Conference on "Contemporary Social Issues" at MMU, Mullana 31 March 2015.

11. 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).

12. 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.

13. 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.

14. 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.

15. Paper presented on Electronic Waste Environment Issue and It's Management in National Seminar on "Chemistry of Industrial Globalization, Environmental, Pollution and Its Chem-Biological Significance" at Govt. Post Graduate College, Ambala Cantt. 11 February, 2016.

16. Paper Presented on Challenges of E-Waste Management in India in "Recent Advances in Chemical, Biogical And Environmental Sciences", RACES at Multani Mal Modi College, Patiala 19-20 February -2016

17. 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.

18. 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

19. 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.

20. 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.

21. 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.

22. 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

23. 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.

24. 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.

25. 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.

26. Paper Presented on Study of Problems of word segmentation of Handwritten text in Devavnagari Script in National Conference on the Advances in Computer Science & Information Technologies (NCACSIT-2017) at Savitribai Phule Pune University, Pune 29-30 December, 2017

27. Paper Presented on Threat of Electronic Waste in UGC sponsored 9th National Conference on Recent Advances in Chemical, Biogical And Environmental Sciences, (RACES-2018) at Multani Mal Modi College, Patiala 9-10 February, 2018

28. Paper Presented on 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

29. 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

30. 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, Biogical And Environmental Sciences, (RACES-2018) at Multani Mal Modi College, Patiala 11-12 April, 2019.

31. 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 PMN College, Rajpura January 25, 2020

32. 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 PMN College, Rajpura January 25, 2020

33. Paper Presented on Role of ICT in 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

C) Attended

1. Attended the One Day National Seminar "Techvision -2020" held at Desh Bhagat Group of Institutes on 31-Januaray-2009.

2. 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.

3. Attended the Three Days International Conference on "Information Systems for Indian Languages (ICISIL 2011) at Punjabi University, Patiala 9-11,March-2011.

4. 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

5. Attended National Conference on "Changing Paradigm of Copyright, Patent and Other IPR Issues In India" at MMU, Mullana 25,26-April, 2015

6. Attended National Seminar on Contemporary Issues in Education at Panjab University, Chandigarh on 10, July 2016

Ph.D. Students

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

2. Sukh Sehaj Singh **(On-going)** "DEVELOPMENT OF AN EFFICIENT TECHNIQUE FOR UNDERWATER IMAGE DEHAZING AND COLOUR CORRECTION" (Mar 26, 2019)

3. Loveleena Mukhija **(On-going)** "DEVELOPMENT OF AN EFFICIENT TECHNIQUE FOR VIRTUAL MACHINE ALLOCATION AND MIGRATION USING MACHINE LEARNING" (Aug 23, 2019)

Workshops and training courses

1. Attended Three Days "Faculty Development Programme on DB2" at Desh Bhagat College, Mandi Gobindgarh from 11-June-2007 to 13-June-2007.

2. Attended Orientation Course from 18-June-2010 to 15-July-2010 with A grade from Punjabi University, Patiala

3. Attended the One Day workshop "D-Link Technical Workshop" held at Punjabi University,

Patiala on 3-Dec-2010.

4. 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.

5. Attended the one day workshop "National e-Governance Plan(NeGP)" held at Punjabi University, Patiala on 22-December-2011.

6. Attended the Refresher Course from 14-May-2012 to 02-June-2012 with A grade from Punjabi University, Patiala

7. Attended the One Day Long Technical workshop "ARUBA NETWORKS MOBILITY SOLUTIONS" held at Punjabi University, Patiala on 9-November-2012.

8. 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.

9. Attended the UGC Sponsored one week National workshop on "Multilingual Technologies (NWMLT-2013)" held at Punjabi University, Patiala from11-17, November 2013.

10. Attended the 15 days Faculty Development Program at Multani Mal Modi College, Patiala from 01-July-2014 to 15-July-2014.

11. Attended 7 Day Workshop on Leadership & Advocacy at Multani Mal Modi College, Patiala 25-31 May, 2015

12. Attended 7 Day Faculty Development Programme at Multani Mal Modi College, Patiala 9-15 July, 2015.

13. Attended Refresher Course from 19 November, 2016 to 10 December, 2016 with A grade from Bhagat Phool Singh Mahila Vishwavidyalaya, Khanpur Kalan Sonipat

14. Attended UGC sponsored 7 Day Faculty Development Programme at Multani Mal Modi College, Patiala 9-16 January, 2017.

15. Attended UGC sponsored One week Faculty Development Programme at Multani Mal Modi College, Patiala 20-26 July, 2018.

16. Attended UGC sponsored One week Faculty Development Programme at Multani Mal Modi College, Patiala 15-22 July, 2019.

Achievements, Awards and Recognitions

- External Evaluator and paper setter of Mata Gujri College, Fatehgarh Sahib, Khalsa College, Patiala and Kanya Maha Vidyalaya, Jalandhar

Resources Development

- Video Lecture on Process Management available on Modi College Youtube Channel
- Video Lecture on CPU Scheduling available on Modi College Youtube Channel
- PPT on process Management https://bit.ly/2weq4RF

- PPT on Threads http://bit.ly/380Oknx

- 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).