1. Personal Information

1.	**Name**	Dr. Nirvair Neeru
2.	**Father's Name**	Sh. Hira Singh
3.	**Designation**	Assistant Professor
4.	**Department**	Department of Computer Science & Engineering , Punjabi University Patiala.
5.	**Date of Birth**	20-01-1981
6.	**Nationality**	Indian
7.	**Marital Status**	Married
8.	**Permanent Address**	#275, Abrol Nagar, Pathankot.
9.	**Phone No.**	9781298564
10.	**E-Mail ID**	nirvair.ce@pbi.ac.in

2. Academic Qualifications :

1. B.Tech Comp.Engg(I.T)
2. M.Tech(I.T)
3. M.Phil(Comp.Sci)
4. Ph.D. – "Study and Development of Face Recognition Techniques".

3. Area Of Specialization :

Research Area: Image Processing.

Subjects Taught: Image Processing, Relational Database Management System, Advanced data Structures, Advance Database System, Software Engineering, Software Project Management, Operating System, Computer System Architecture, Data Mining & Warehousing.

4. Research Profile :

- Publications in Research Journals/Conference : 49

- M.Tech. candidate Guided: 23
- Ph. D candidate guided : 01
- Ph.D. Ongoing : 04

5. Publications:

1. Reusability Evaluation Model for Procedure Based Software Systems, International Journal of Computer and Electrical Engineering, Vol.2, No.6, December, 2010

2. Identification of Reusable Software Modules in Function Oriented Software Systems using   Neural Network Based Technique, World Academy of Science, Engineering and Technology 67 2010.

3. Recognition of Facial Expressions with Principal Component Analysis and Singular   Value Decomposition, International Journal of Computer Applications (0975 – 8887) Volume 9– No.12, November 2010.

4. "PCA Technique for Feature Extraction", National Conference held at Baba Farid College, Bathinda, 2011.

5. Proposed Method for face Recognition using eyes, National conference on Engg. Applications,   St. Solder Group of Institutions,9 April 2011.

6. Reetika Ahuja, Nirvair Neeru, A REVIEW ON MULTIMODALITY IMAGE REGISTRATION USING HYBRID   TECHNIQUE', International Journal of Advanced Research in Engineering and Applied Sciences, ISSN: 2278-6252, Vol. 2 | No. 6 | June 2013.

7. Amrita, Jaspreet Singh Cheema, Nirvair Neeru, 'A novel technique based on ant colony   optimization for image stitching', IJAIR, Vol. 2 Issue 4, ISSN: 2278-7844, 2013.

8. Amrita, Jaspreet Singh Cheema, Nirvair Neeru,' Detection and Removal of Noises in Iris Recognition System- A Review', International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 4, April – 2013.

9. Amrita,Nirvair Neeru, " Study of Image Stitching using various Models", IJAIR, Vol-2, Issue-5, May 2013

10. Harpreet Singh, Nirvair Neeru,' Study of Salt and Pepper Noise Removal Filters- A Review'*IJAIR Vol. 2 Issue 5 ISSN: 2278-7844,* 2013.

11. Harpreet Singh, Nirvair Neeru,"Performance Improvement of Decision Based Un-symmetric Trimmed Midpoint Filter for Removing High Density Salt and Pepper Noise", International Journal of Emerging Trends & Technology in Computer Science (IJETTCS), ISSN 2278-6856, Volume 2, Issue 3, May – June 2013

12. Amrita, Nirvair Neeru,' A Novel Approach for Medical Image Stitching Using Ant Colony Optimization', Int. Journal of Engineering Research and Applications ISSN : 2248-9622, Vol. 4, Issue 5(Version 1), May 2014, pp.21-28.

13. Alisha Arora, Nirvair Neeru, "IMAGE STEGNOGRAPHY TECHNIQUES:AN OVERVIEW", IJTRE, vol 1, issue 9,issn(online):2347-4718,May 2014.

14. Aanchal Garg , 2Nirvair Neeru,' Enhancement of Underwater Images: A Review', International Journal of Computer Science and Information Technologies, Vol. 5 (4) , 2014, 3677-3678, ISSN:0975-9646.

15. Inderpreet Singh, Nirvair Neeru,' Performance Comparison of Various Image Denoising Filters Under Spatial Domain', International Journal of Computer Applications (0975 – 8887) Volume 96-No.19, June 2014.

16. Tajinder Kaur, Nirvair Neeru," Text detection and Extraction From Natural Scene: A Survey, IJARCSMS,vol-3,Issue-3,March 2015.

17. SehasNainjot Singh, Nirvair Neeru,"Finger Print Fusion Using Daubechies(DB1) Wavelet Transformation and Quality Measures", 2nd international Conf.….11-13 march 2015

18. Pamilpreet Kaur, Nirvair neeru," Novel Framework for Multimodal Biometric Person Authentication System: A Review", International Journal of Advanced Trends in Computer Applications (IJATCA) Volume 2, Number 2, July - 2015, pp. 43-46 ISSN: 2395-3519 .

19. Tajinder Kaur, Nirvair Neeru," Text detection and Extraction From Natural Scene", International Journal of Advanced Research in Computer Engineering & Technology (IJARCET) Volume 4 Issue 7, July 2015

20. Pamilpreet Kaur, Nirvair Neeru," A Hybrid Approach for Secure Biometric Authentication Using Fusion of Iris and Ear", IJARCSSE, Volume 5, Issue 8, August 2015 ISSN: 2277 128X.

21. Maninder Kaur, Nirvair Neeru, " A Review on Digital Watermarking Using LSB", International Journal of Advanced Research in Computer Science and Software Engineering, vol.5,Issue 11,ISS;2277128X, Nov. 2015.

22. Nirvair Neeru, Lakhwinder Kaur," Face Recognition based on LBP and CS-LBP Technique under Different Emotions", 2015 IEEE International Conf. on Computational Intelligence and computing Research, Dec-2015.

23. Nirvair Neeru, Lakhwinder Kaur, "Modified SIFT Descriptors for Face Recognition under Different Emotions", Hindawi Publishing Corporation, Journal of Engineering, mVolume 2016, Article ID 9387545, Jan 2016.[E-SCI].

24. Sahil Arora, Nirvair Neeru, "Speech Recognition of Offline Attendance System: A Review", IJCA, vol. 143, no. 4, june 2016.

25. Maninder Kaur, Nirvair Neeru, " Digital Image Watermarking using new Combined technique", IJCA, vol. 145, no. 2, July 2016.

26. Sahil Arora, Nirvair Neeru, "Speech Identification using GFCC, Additive White Gaussian Noise (AWGN) and Wavelet Filter", IJCA, vol. 146, no. 9, july 2016.

27. Nirvair Neeru, Lakhwinder Kaur, "A New Hybrid Filtering Technique Based on Neighboring Pixels to Remove Impulse Noise from Digital Images", International Journal of Signal Processing, Image Processing and Pattern Recognition(IJSIP), SERSC Publications, ISSN 2005- 4254, Volume 9, No9, September 2016.   [EI Compendex].

28. Nirvair Neeru, Lakhwinder Kaur, "An Experimental Analysis on Removal of Salt and Pepper Noise from Digital Images", International Conference on Smart Trends for Information Technology and Computer Communications (SmartCom), Jaipur, Springer Proceeding (LNNS), August 2016.

29. Nirvair Neeru, Lakhwinder Kaur, "A Comparative Analysis for Face Recognition under Different Emotions", American Journal of Engineering Research (AJER) e-ISSN: 2320-0847 p-ISSN: 2320-0936 Vol. 5, Issue-12, pp-213-217, 2016.

30. Nirvair Neeru, Lakhwinder Kaur,"A Survey on Removal of Gaussian Noise from Face Images", International Conference on Recent trends in Computing (ICRTC-206), Punjabi University, Patiala

31. Himanshu Rana, Nirvair Neeru, "a Comprehensive Review of Sobel Edge Detector using Gray Scale Images", International Conference on Recent trends in Computing (ICRTC-206), Punjabi University, Patiala, Department of Computer Engineering, Punjabi University Patiala, 30-31 August 2016.

32. Himanshu Rana, Nirvair Neeru, " water detection using Satellite Images Obtained through Remote Sensing" , Advances in Computer Sciences and Technology, IsSN 0973-6107, vol 10, number 6(2017) pp 19923-19940, ripublications.2017.

33. Himanshu Rana, Nirvair Neeru, "Hybrid Technique for Detection of Water Using Satelite Images", International Journal of advanced research in Computer Science", July- August 2017, vol-8,no-7.

34. Ishpreet Kaur, Nirvair Neeru, "A STUDY OF REMOTE SENSING USING IMAGE FUSION: A REVIEW", International Journal of advanced research in Computer Science", July-August 2017, vol-8,no-7.

35. Ishpreet Kaur, Nirvair Neeru, "AN IMPROVED METHOD OF IMAGE ENHANCEMENT OF REMOTE SENSED IMAGES USING FUSION METHODS", International Journal of advanced research in Computer Science", July-Agust 2017, vol-8,no-7

36. Sakshi, Nirvair Neeru, "Review on Data Compression Techniques, international journal in applied Studies and Production Management , ISSN-394-840X.vol-3, issue- 4, Nov 2017..

37. Sakshi, Nirvair Neeru, A Survey on different Compression Techniques for ECG Data Reduction, nternational Journal of Computer Applications (0975 –8887)Volume 170 –No.4, July 2017.

38. Harinder Kaur, Navjot Kaur, Nirvair Neeru, "Multiorgan Detection: Deep Learning Based Techniques and Research Directions", IJITEE, ISSN:2278-3075, Vol-9,Issue-1, November2019. ,.{UGC}

39. Amanjot Kaur, Nirvair Neeru, Navjot Kaur, "ALZHEIMER'S DISEASE DETECTION TECHNIQUES: A REVIEW",.(Scopus) Advances in Mathematics: Scientific Journal 9 (2020), no.6, 3941–3946, ISSN: 1857-8365 (printed); 1857-8438 (electronic.

40. Yadwinder Singh, lakhwinder kaur, Nirvair Neeru, CLOUD-BASED OPTIMIZED KEY FRAME EXTRACTION MODEL FOR VISUALLY IMPAIRED PERSONS, Advances in Mathematics: Scientific Journal 9 (2020), no.6, 3713–3719, ISSN: 1857-8365 (printed); 1857-8438 (electronic).

41. Sarabjit kaur, Nirvair Neeru A Review paper on Soil Moisture Prediction Techniques with its Application", ICAML-2020 Department of Computer Science & Engineering, Punjabi University Patiala

42. Harbinder kaur, Nirvair Neeru, harpreet kaur, An analysis of Image De-noising Techniques, ICAML-2020 Department of Computer Science & Engineering, Punjabi University Patiala

43. Harbinder kaur, Nirvair Neeru, harpreet kaur, SALT & PEPPER IMAGE DE-NOISING USING WEIGHTED, Kala Sarovar, vol-23 No-04(IX), (UGC Care Group.-l Journal) ISSN: 0915-4520.dec-2020.

44. Amanjot kaur, Nirvair Neeru, Navjot Kaur, MULTIFEATURED APROACH FOR CLASSIFICATION OF ALZHEIMER'S DISEASE FROM BRAIN MRI", Book Chapter NO-13,PP-111-120, , Nov.2020. BOOK NAME- Wireless Communication and Computing , Dr. Ram Krishan,Twentyfirst Century Publications. - ISBN-978-93-90154-76-0.

45. Sarabjit kaur, Nirvair Neeru, TEQNIQUES FOR SOIL MOISTURE PREDICTION USING MACHINE LEARNING, Book Chapter No-5, pp-37-43, book name-Wireless Communication and Computing. Twentyfirst Century Publications, ISBN-978-93-90154-76-0,.nov.2020.

46. Yadwinder Singh, Lakhwinder Kaur, Nirvair Neeru, " Video Segmentation Techniques- A Review on its Application and Recent Advancements" (Communicated in Conference, ICAML 2021).

47. Amrita Kaur, Yadwinder Singh, Nirvair Neeru, Lakhwinder Kaur, Ashima Singh, "A Survey on Deep Learning Approaches to Medical Images and a Systematic Look up into Real-Time Object Detection", Archives of Computational Methods in Engineering, springer. Vol-29 issue-4,, pages2071–2111. https://doi.org/10.1007/s11831-021-09649-9   ,october 2021. Electronic ISSN 1886-1784,Print ISSN 1134-3060. Impact Factor-7.302.

48. Yadwinder Singh, Lakhwinder Kaur, Nirvair Neeru, "A new Improved Obstacle Detection Framework using IDCT and CNN to Assist Visually Impaired Persons in an Outdoor Environment" , Wireless Personal Communications, Springer. Vol-122, issue 4 https://doi.org/10.1007/s11277-022-09533-0 Feb-2022. (SCI Journal). Electronic ISSN 1572-834X, Print ISSN 0929-6212 Impact Factor -1.671

49. Harinder Kaur, Navjot Kaur, Nirvair Neeru, "Evolution of multiorgan segmentation techniques from traditional to deep learning in abdominal CT images – A systematic review" Displays, Elsevier, vol-73, April,2022. Issn- 0141-9382 journal homepage: www.elsevier.com/locate/displa SCI Paper.impact factor-2.167.

6. Courses Attended:

1. Short term Program on Digital and data communication from 6/6/2005 to 10/6/2005 at NITTTR, Chandigarh.
2. Participated in one day national Seminar on "Recent Advances and Future trends in Digital Image Processing" (RAFIP) 2010 held on 30th march 2010 at Department of Computer Science, Punjabi University, Patiala.
3. Orientation Course of 28 days (10-02-2013 To 09-03-2013) at ASC, PUP, Patiala.
4. Refresher Course (14-11-2013 To 04-12-2013) at ACS, PUP, Patiala.
5. Refresher Course - Research Methodology & Data Analysis (02-12-17 TO 21-12-17)
   Human Recourse Development Centre Punjabi University Patiala
6. Short term course (one week) on MICROCONTROLLER AND ITS APPLICATIONS conducted by Electronics and comm. Engg. Department from 07/1/2019 to 11/1/2019 at Punjabi university Patiala.
7. One Week FDP on "Internet of Things" conducted by Computer Science & Engineering Department , NITTR Chd. from 23-27 September 2019 at Department of Computer Science & Engineering, Punjabi University, Patiala
8. One Week FDP on "Cyber Security" conducted by Information Management and Coordination Department, NITTR Chd. from 09-13 Dec 2019 at Department of Computer Science & Engineering, Punjabi University, Patiala.
9. 7 days workshop on "Gender Equality at Workspace: Legal and Psycho-Social Issues" under faculty development program from 1/5/19 to 7/5/19.
10. "Workshop on essentials of NBA Accreditation " conducted by Department of Computer Science & Engineering, Punjabi University, Patiala, on 28th Nov-2019.
11. Participated in One day Webinar on "How to Write a Good Research Project Proposal" held on 31th may 2020.
12. Online FDP on "Python and Emerging Trends in Machine Learning", conducted by Forsk Coding School, held between 02-06 June2020.
13. Online FDP on "Python for Data Science", conducted by Forsk Coding School, held between 15-20 June2020.

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7. Professional Bodies Memberships:

1. Life membership o f Punjab Academy of Science. membership no. 1549
2. Member of faculty of Engineering and technology (from 17/12/18 to 11/12/2020)
3. Member of "The institution of Engineers (India)".

8. Administration Experience:

1. Advisor of Student Chapter of "The Institution of Engineers (India)".
2. Coordinator of PhD Program.
3. Member of DRB committee.
4. Member of Technical Committee of International Conference ICAML-2020.
5. Served as Reviewer for International Conference ICAML-2020.
6. Served as Reviewer for 'British Journal of Mathematics & Computer Science' Journal.
7. Organized a Faculty Development Program on "Internet of Things" (23-28 September 2019) with collaboration of NITTR, Chandigarh.
8. Worked as time table committee.
9. Worked as Member of Student welfare/grievance cell.
10. Worked as Co-coordinator, Discipline Committee.
11. Worked as Coordinator, Date sheet Preparation and Conduct of Practical Examination for the department.
12. Worked as Secretary of ACD committee.
13. Worked as coordinator of Part Time M.Tech.
14. Worked as Suptd. in Examination duties .
15. Worked as Member of Dissertation Pre-submission screening committee of department.
16. Worked as Co-coordinator of Theory exam conduct/schedule committee.
17. Worked as Co-coordinator of NAAC related activities

9. Employment History:

1. Working as Assistant Professor from 21/8/2009 to till date in Department of Computer Science and Engineering, Punjabi University, Patiala
2. Worked as lecturer in SSCET, Badhani From 1/8/2002 to 20/8/2009.

Dr. Nirvair Neeru