

DOB: 2nd September, 1986

Mob: +91-9988230698

H.No.02821, Phase No. 4,

Street No.4, Shakti Vihaar,

Bathinda 151001

Objective

“To grow with a smart, strong and experienced team and work in competitive environment where my skills and professionalism can be challenged and utilized.”

Experience

- Has been SPOC of Local Chapter (LC -7832)(NPTEL- SWAYAM) w.e.f. 14 August 2025
- Has been Incharge of Red Ribbon Club Guru Nanak College Killianwali w.e.f. July 2024
- Has been Incharge of Career Counselling and Guidance Cell, Guru Nanak College Killianwali Dist. Sri Muktsar Sahib (Pb.) w.e.f. 2nd Feb 2018.
- Has Been Teaching as an Assistant Professor in Mathematics From 1 December 2017 in Guru Nanak College Killianwali, Dist. Sri Muktsar Sahib
- Had worked as an Assistant Professor in Mathematics From September 2017 to November 2017 in Govt. Rajendra College Bathinda.
- Had worked as an Assistant Professor in Mathematics From August 2015 to February 2016 in DAV College Bathinda.
- Had worked as an Assistant Professor in Mathematics From November 2014 to May 2015 in Baba Farid College Bathinda.
- Had worked as an Assistant Professor in Mathematics From July 2012 to August 2014 in Multani Mal Modi College Patiala.
- Had taught B.Tech Classes (Maths) as a Research Scholar in M.M. University Mullana. (from Sept. 2011 to May 2012)

Educational Background

Degree/ Examination	Institute/Univ./Board	Year of Passing	Percentage
---------------------	-----------------------	-----------------	------------

Ph.d (Mathematics)	MMU(Mullana)	Feb 2017	
M.Phil(Mathematics)	MMU(Mullana)	2011	8.92(CGPA) 81.42% 310/400 260/300
Post Graduation (M. Sc. Mathematics)	Khalsa College, Patiala (Under Punjabi Uni., Patiala)	2009	67.1%
Graduation	Govt. Ripudaman College, Nabha	2007	60.70%
Intermediate (with Math's & Eco.)	Govt. Sen. Sec. Girls School, Nabha/ P.S.E.B., Mohali	2004	72.67%
Matriculation	M.K. Arya High School, Nabha / P.S.E.B. , Mohali	2002	74.67%

Research Publications

Two Patents Published

- AI -Powered wearable system for autonomous rural Agricultural Task Scheduling and Execution (Utility Patent published 202511126953A) on 23-01-2026
- Equation Solving Computing Device (design patent published. 483108-001/09-12-2025)

7 research books in **LAMBERT Academic Publishing, Germany** has been published. **Annexure 1**

4 text books Annexure 1

51 research papers in National / International journals has been published. **Annexure 2**

Co-Curricular Activities

- Chaired the Technical session in International Conference.
- Acted as Chief Guest in Prize Distribution at Delhi Public School Bathinda
- Acted as Resource Person in various institutes

- Presented research papers in various International conferences. **Annexure 3**
- Presented research papers in various National conferences. **Annexure 4**
- Attended various National Seminars & workshop on “Matlab & its applications in Engineering”. **Annexure 5**
- Attended **FACULTY DEVELOPMENT PRGRAMME** in Colleges. **Annexure 6**

Major Subjects in Graduation

Mathematics, Economics & Sanskrit

Computer Skills

Course Diploma In Computer Programming.

Operating System Windows 98, XP

Hobbies

Reading, traveling and surfing.

I hereby confirm that the above given information is true and complete to the best of my knowledge and belief.

Date:

Place:

(Payal Singla)

- [1] 2 Stage Specially Structured Flow Shop Scheduling Techniques : Minimization of rental cost

LAMBERT Academic Publishing, Germany,

ISBN: 978-3-8484-1923-4, **2014-06-04**

- [2] Three Stage Specially Structured Flow Shop Scheduling Models : Minimization of Rental Cost
of Machines

LAMBERT Academic Publishing, Germany,

ISBN: **978-3-659-56055-2, 2014-06-23**

- [3] Open Shop Scheduling : Minimizing Make Span,

LAMBERT Academic Publishing, Germany,

ISBN: **978-3-659-25044-6, 2013**

- [4] "Network of Scheduling Problems : Flow Shop Scheduling,

LAMBERT Academic Publishing, Germany,

ISBN: 978-3-8484-8611-

3, 2012.

- [5] Flow Shop Scheduling : Branch and Bound Technique

LAMBERT Academic Publishing, Germany,

ISBN: 978-3-

659-11505-9, 2012.

- [6] Specially Structured Flow Shop Scheduling: Minimization of rental cost LAMBERT Academic
Publishing, Germany,

ISBN: 978-3-659-14269-7, 2012.

[7] Weighted Flow Shop Scheduling : Branch and Bound Technique

LAMBERT Academic Publishing, Germany,

ISBN: 978-3-659-58233-2, 2014.

List Of Text Books

1. Calculus – I for B.A. Sem-1 in November December 2021 with ISBN: 978-93-90703-01-2.
2. Vedic Mathematics Value Added Course for under graduate students with ISBN: 978-81-978110-8-1
3. Vedic Algebra Value Added Course for under graduate students with ISBN: 978-93-48062-38-3
4. Algebra and Trigonometry July 2026 with ISBN: 978-81-92429-72-4

Dr. Payal Singla Publication Details				Annexure 3	
Sr. No.	Topic of research paper	Name of the Research Journal	Vol. No. & Issue in which published	Year of publications	ISSN
1.	Optimal Two Stage Flow Shop Scheduling to Minimize the Rental Cost including Job Block Criteria, Set Up Times and Processing Times Associated with Probabilities	European Journal of Business and Management	Vol. 3, No.3, pp. 268-286	2011 IC Impact factor value 7.17	2222-1905
2.	Application of Branch and Bound Method for Optimal Two Stage Flow Shop Scheduling Problem with Group Job-Restrictions	Journal of Information Engineering and Applications	Vol 1, No 5, pp. 1-4	2011 IC Impact factor value 5.65	2224-5782
3.	Minimizing Rental Cost For N-Jobs, 2-Machines Flow Shop Scheduling, Processing Time Associated With Probabilities Including Transportation Time And Job Block Criteria,	Information and Knowledge Management	Vol.1, No.3, pp. 17-27	2011 IC Impact factor value 5.42	2224-5758

4.	Branch and Bound Technique for n*3 Flow Shop Scheduling Problem Including Transportation Time and processing time associated with their respective probabilities	International Journal of Emerging Trends in Engineering and Development	Vol 1 No. 2, pp. 307-312	2012 3.22	2249-6149
5.	Constrained N-Job, 3-Machine Flow Shop Scheduling Problem With Transportation Time	International Journal of Research in Engineering & Applied Sciences	Vol.2,No.1, pp. 321-326	2012 6.573	2249-3905
6.	Application of Branch and Bound Technique for 3-Stage Flow Shop Scheduling Problem with Transportation Time	Industrial Engineering Letters	Vol 2,No 1, pp. 1-5	2012	
7.	Three Stage Flow Shop Scheduling Problem With Branch And Bound Technique In Which Processing Time Associated With Their Respective Probabilities Including Transportation Time And Break Down Interval	International Journal of Industrial Engineering & Technology	Vol.2 No.1, pp. 45-57	2012	
8.	Application Of Branch And Bound Technique For Nx3 Flow Shop Scheduling With Breakdown Interval	International Journal of Engineering Research and Application	Vol. 2, Issue 3, pp.1675-1679	2012	
9.	Nx3 Flow Shop Scheduling Problem To Minimize The Rental Cost In Which Processing Time Associated With Probabilities With Jobs In A String Of Disjoint Job Block	International Journal of Emerging Trends in Engineering and Development	Vol. 2 No.2, pp. 24-34	2012	
10.	Branch And Bound Approach In Two Stage Flow Shop Scheduling Problem Including Transportation Time And Idle Waiting Time Operator $O_{i,w}$ For A Job Block	International Journal of Computer Application	Vol.2 No.2, pp. 65-73	2012	

11.	Specially Structured Two Stage Flow Shop Scheduling To Minimize The Rental Cost, Processing Time Each Associated With Probabilities Including Weightage Of Jobs	International Journal of Research in Management	Vol. 2 No. 2, pp. 195-204	2012	
12.	Application Of Idle Waiting Time Operator For A Job Block In Two Stage Flow Shop Scheduling Problem With Branch And Bound Approach	International Journal of Emerging Trends in Engineering and Development	Vol.2 No.2, pp. 47-56	2012	
13.	Branch And Bound Technique For Two Stage Flow Shop Scheduling With Breakdown Interval	International Journal of Advanced Scientific & Technical Research	Vol. 2 No.2, pp. 92-98	2012	
14.	Branch And Bound Approach In Two Stage Flow Shop Scheduling Problem Including Job Block And Transportation Time	International Journal of Emerging Trends in Engineering and Development	Vol. 2 No.2, pp. 103- 110	2012	
15.	Heuristic Approach To Minimize The Rental Cost For Specially Structured Two Stage Flow Shop Scheduling Including Weightage of Jobs	International Journal of Advanced Scientific & Technical Research	Vol. 2 No. 2, pp. 150-157	2012	
16.	Two Stage Flow Shop Scheduling Problem With The Help Of Branch And Bound Approach, Processing Time Associated With Probabilities Including Weightage Of Jobs	International Journal of Computer Application	Vol. 2 No. 2, pp. 37-42	2012	
17.	Nx3 Specially Structured Flow Shop Scheduling To Minimize The Rental Cost Including Job Restrictions and Transportation Time	International Journal of Research in Management	Vol. 2 No. 2, pp.174-180	2012	
18.	The Idle Waiting Time Operator With Application To Multistage Flow Shop Scheduling To Minimize The Rental Cost Under Specified Rental Policy Where Processing Times Are Associated With Probabilities Including Transportation Time	International Journal of Advanced Scientific & Technical Research	Vol. 2 No.2, pp. 225-233	2012	

19.	Specially Structured N-Job, 3-Machine Flow Shop Scheduling To Minimize The Rental Cost With Separated Set Up Times	International journal of environmental engineering and management	Vol. 3, no.2, pp.-323-326	2012	
20.	Constrained Multi Stage Flow Shop Scheduling Including Transportation Time And Weightage Of Jobs With Break Down Interval Having Job Block Criteria , The Processing Time Associated With Respective Probabilities	International Journal Of Mathematical Analysis	Vol. 6, No. 43, pp. 2133-2139	2012	Scopus
21.	Minimizing Rental Cost For Specially Structured Two Stage Flow Shop Scheduling Processing Time Associated With Probabilities Including Weightage Of Jobs And Job Block Criterion	International Journal of Research in Management	Vol. 3, No.2, pp.79-92	2012	
22.	Optimal Two Stage Open Shop Scheduling , Processing Time Associated With Probabilities Including Transportation Time And Job Block Criterion	International Journal Of Mathematical Archive	Vol 3, No. 5, pp. 1859-1872	2012	
23.	A Heuristic Approach for Two Stage Open Shop Scheduling with Transportation Time and weightage of jobs including job block criterion, the processing time associated with probabilities	International journal of Scientific and Research Publications	Vol.2, No.7, pp.1-20	2012	
24.	Specially Structured Three Stages Flow Shop Scheduling Processing Time Associated With Probabilities Including Transportation Time To Minimize The Rental Cost	GIAN JYOTI E-JOURNAL	Volume 2, Issue 3	(Jul – Sep 2012)	
25.	Specially structure n-job, 3- machine flow shop scheduling to minimize the rental cost, with job block criteria	International Journal of Applied Engineering Research	Volume 7, Number 10	(2012) pp. 1161	Scopus

				- 1168	
26.	A New Heuristic Approach for Specially Structured Two Stage Flow Shop Scheduling to Minimize the Rental Cost, Processing Time, Associated with Probabilities Including Transportation Time, Job Block Criteria and Job Weightage	Advances in Applied Science Research	3 (4)	201 2	
27.	Heuristic Approach for Specially Structured Two Stage Flow Shop Scheduling to Minimize the Rental Cost, Processing Time, Set Up Time Are Associated with Their Probabilities Including Transportation Time and Job Weightage,	International Journal of Applied Operational Research	Vol. 2, No. 3, pp. 1-10	201 2	
28.	Optimal 3-Stage Schedule for specially Structured Flow Shop Problem to Minimize the Rental Cost including Transportation and Job Weightage	International Journal of Scientific & Engineering Research	Volume 3, Issue 9	Sept emb er- 201 2	
29.	Specially Structured Two Stage Flow Shop Scheduling To Minimize the Rental Cost, Processing Time, Set up Time Are Associated With Their Probabilities	<i>International Journal of Engineering Research and Development</i>	<i>Volume 3, Issue 5</i> <i>PP. 72-77</i>	<i>(Aug ust 201 2)</i>	

	Including Job Block Criteria And Job Weightage				
30.	Minimize the rental cost for specially structured two stage flow shop scheduling processing time, set up time associated with their probabilities including job block criteria and transportation time	International J. of Math. Sci. & Engg. Appls. (IJMSEA)	Vol. 6 No. VI	(November, 2012)	
31.	Minimization of Elapsed Time in N×3 Flow Shop Scheduling Problem, The Processing Time Associated With Probabilities Including Transportation Time	International Journal of Innovations in Engineering and Technology	Special Issue - ICAECE-2013 ISSN : 2319-1058	38 – 42	
32.	An Heuristic Approach N×3 Flow Shop Scheduling Problem In Which Processing Time Are Associated With Probabilities Including With Transportation Time And Job- Block Criteria	International Journal of Innovations in Engineering and Technology	Special Issue - ICAECE-2013 ISSN : 2319-1058	25 – 30	
33.	N x 2 Flow Shop Scheduling Model Using Branch and Bound Technique, Set up Times are Separated from Processing Times, With Job Block Criterion And Interval Of Non Availability Of Machines	International Journal of Engineering and Innovative Technology (IJEIT)	Volume 3, Issue 1, July 2013	529 – 532	
34.	Minimize the Rental Cost in Two Stage Flow Shop Scheduling Problem in Which Set Up Time Separated From Processing Time with Branch and Bound Technique	International Journal of Emerging Technology and Advanced Engineering	ISSN 2250-2459 Volume 3, Issue 8, August 2013	315 - 320	

35.	Two Stage Flow Shop Scheduling Model with Job Block Criteria and Unavailability of Machines Using Branch& Bound Technique	International Journal of Innovative Research in Science, Engineering and Technology	Vol. 2, Issue 8, August 2013	404 4 – 404 9	
6.	A New Heuristic Approach for Specially Structured Two Stage Flow Shop Scheduling to Minimize the Rental Cost, Processing Time, Associated With Probabilities Including Transportation Time, and Job Weightage	International Journal of Emerging Trends in Engineering and Development	Issue 3, Vol.4 (June-July 2013)	18 – 26	
37.	A HEURISTIC FOR TWO MACHINE OPEN SHOP SPECIALLY STRUCTURED SCHEDULING PROBLEM TO MINIMIZE THE RENTAL COST, INCLUDING JOB BLOCK CRITERIA	International Journal of Pure and Applied Mathematics	Volume 86 No. 5 2013	767 - 778	Scopus
38.	Optimal Two Stage Flow Shop Scheduling Problem with Branch and Bound Method Including Transportation Time	International Journal of Innovative Research in Computer and Communication Engineering	<i>Vol. 1, Issue 4, June 2013</i>	1-5	
39.	A Branch and Bound Method for Two Stage Flow Shop Scheduling Model, in which Setup Times are Separated from Processing Times, With an Interval of Non-Availability of Machines	INTERNATIONAL CONFERENCE ON INFORMATION & MATHEMATICAL SCIENCES (IMS-13) organized by BABA FARID COLLEGE OF ENGINEERING & TECHNOLOGY	proceeding published by Elsevier science and technology	272 – 274	

		Muktsar Road, Bathinda-151001, Punjab (INDIA)			
40.	Two Stage Flow Shop Scheduling Problem Including Transportation Time and Weightage of Jobs with Branch and Bound Method	International Journal of Applied Operational Research	2013; 3 (4)	1-6	
41.	3-Stage Specially Structured Flow Shop Scheduling to Minimize the Rental Cost, Set Up Time Separated from Processing Time Including Transportation Time	<i>International Journal of Computer Applications</i>	<i>Volume 53–No.5,</i>	<i>September 2012</i>	
42	Optimal Two Stage Open Shop Specially Structured Scheduling To Minimize the Rental Cost, processing time Associated with Probabilities including transportation time	<i>IOSR Journal of Mathematics (IOSR-JM)</i>	<i>ISSN: 2278-5728. Volume 3, Issue 3 (Sep-Oct. 2012),</i>	<i>PP 01-06</i>	
43.	Branch and Bound Technique in Two Stage FSS Model with Job Block, Weightage of Jobs, Non Availability of Machines and Set Up Times are Separated from Processing Times	International Journal of Mathematical Analysis (IJMA) by hIKARI	accepted	7 oct 2013	

44	Application of Branch and Bound Method for Optimal Two Stage Flow Shop Scheduling Problem With Group Job-Restrictions, Transportation Time And Job Weightage	ijirset	communicated	30 nov	
45	Minimizing Rental Cost for Specially Structured Two Stage Flow Shop Scheduling, Processing Time, Setup Time Associated With Probabilities Including Weightage of Jobs	Pelagia Research Library Advances in Applied Science Research,	3 (5):2906-2911	2012	
46	Gender Equality, Women Empowerment and Sustainable Development	<i>Sustainable Development in India-Innovative Practices</i>	Published Sapatrishi Publications ISBN: 978-93-87745-38-4	Pp 102-109	2018
47	Optimization of waiting time of jobs in three stage flow shop scheduling models with transportation time of jobs	Special Issue on RDESTM-2020 Advances in Mathematics:Scientific Scopus Indexed	ISSN: 1857-8365 (printed); 1857-8438 (electronic) Optimization of waiting time of jobs in three stage flow shop scheduling models with transportation time of jobs	2020 9 (3), 1119 - 1128	Scopus Indexed

48	Sequencing of n jobs on 3 machines with arbitrary lags	Special Issue on RDESTM-2020 Advances in Mathematics:Scientific Journal	ISSN: 1857-8365 (printed); 1857-8438 (electronic) https://doi.org/10.37418/amsj.9.6.23 Spec. Issue on RDESTM-2020	Vol 9 (2020), no.6, pp. 343-3438	Scopus Indexed
49	MINIMIZATION OF TOTAL WAITING TIME OF JOBS IN NX3 SPECIALLY STRUCTURED FLOWSHOP SCHEDULING IN WHICH PROCESSING TIME WITH THEIR RESPECTIVE PROBABILITIES INCLUDING TRANSPORTATION TIME OF JOBS	Advances in Mathematics: Scientific Journal Spec. Issue on CAMM-2020	https://doi.org/10.37418/amsj.9.9.12 ISSN: 1857-8365 (printed); 1857-8438 (electronic)	9 (2020), no.9, pp.6547-6556	Scopus Indexed
50	OPTIMAL THREE STAGE SPECIALLY STRUCTURED FLOWSHOP SCHEDULING TO MINIMIZE THE TOTAL WAITING TIME OF JOBS, PROCESSING TIME ASSOCIATED WITH PROBABILITIES	Advances in Mathematics: Scientific Journal Spec. Issue on RDESTM-2020	ISSN: 1857-8365 (printed); 1857-8438 (electronic) https://doi.org/10.37418/amsj.9.7.28	9 (2020), no.7, pp.4597-4605	Scopus Indexed
51	Specially Structured three stage Flow Shop Scheduling to Minimize the Total Waiting Time of Jobs	Journal of Computational and Theoretical Nanoscience	Manuscript Id: CTN-AS-200102, ISSN 1546-1963 DOI	17 (11) 2November 2020	Scopus

	https://www.researchgate.net/publication/348731602_Specially_Structured_Three_Stage_Flow_Shop_Scheduling_to_Minimize_the_Total_Waiting_Time_of_Jobs		10.1166/jctn.2020.9345	5091 - 5095	
52	Production problem with the conception of task (Job) block criteria	Advances in Mathematics: Scientific Journal	2021 ISSN: 1857-8365 (printed); 1857-8438 (electronic) https://doi.org/10.37418/amsj.10.3.27	10 (2021), no.3, 1389–1396	Scopus
53	COVID-19: General Overview with Mathematical Model	Dogo Rangsang Research Journal	ISSN: 2347-7180 20 July 2020	Vol 10 (7) Pp 183-188	UGC Care Group I
54	3- Stage Production Scheduling with the Concept of Set-Up Time Including Arbitrary Lags.	Aryabhatta Journal of Mathematics and Informatics	2021 ISSN: 2394-9309 DOI: 10.5958/2394-9309.2021.00003.2	Vol 13, No. 1, 2021, pp. 29-34	

55	Specially Structured Two Stage Flow Shop Scheduling Problem to Minimize the Rental Cost Including Arbitrary Lags	Stochastic Modelling and Computational Sciences	June 2023 ISSN: 2752-3829	Vol. 3, No. 1	Scopus
----	---	--	--	----------------------	---------------

INTERNATIONAL CONFERENCES

Annexure 3

1. Minimizing of Rental Cost in Two Stage Flow Shop scheduling Problem, in which setup time separated from Processing Time and each associated with Probabilities Including Break-down Interval and Job – Block Criteria presented in CONIAPS-XIII, **13th International conference of International Academy of Physical Sciences**, held on June 14-16,2011 at University of Petroleum & Energy Studies, Dehradun, India.
2. Constrained N-Job, 3-Machine Flow Shop Scheduling Problem with Transportation Time, presented in **International Conference On Competitiveness & Innovativeness In Engineering, Management & Information Technology** Held On 29th January, 2012 at MAIMT, Jagadhri
3. Specially Structured three stages flow shop scheduling processing time associated with probabilities including transportation time to minimize the rental cost presented in **international Conference On India in an Era of Global Uncertainties** Held On 7th April, 2012 at Gian Jyoti Institute of Management & Technology, Mohali.
4. A Branch And Bound Method For Two Stage Flow Shop Scheduling Model, In Which Set Up Times Are Separated From Processing Times, With An Interval Of Non-Availability Of Machines Presented Paper In International Conference on Information And Mathematical Sciences (IMS-13) Held On 24-26 Oct,2013 At Baba Farid College Of Engineering & Technology
5. Two Stage Flow Shop Scheduling Model Including Weightage Of Jobs And Job Block Criteria With Branch And Bound Technique, presented paper in International Conference On Innovative Trends In Mathematics, Computer & Information Sciences (ITMCIS-17) Held On March 09-10, 2017 At Mmu Mullana, Ambala-Haryana, India.
6. Minimization Of Total Waiting Time of Jobs in nx3 Specially Structured Flow Shop Scheduling , Accepted in 8th International Confernce on Advancements in Engineering And Technology ICAET-2020 to be held on 20 & 21 March 2020 Postponed due to COVID-19

NATIONAL CONFERENCES

Annexure 4

1. Nx2 flow shop scheduling to Minimize the Rental Cost, Processing Time associated with Probability including Job Block Criteria and Transportation Time to minimize the rental cost presented in **National Conference On Recent Trends In Mathematics & Its Applications** Held On 16-17 December, 2011 at Sant Longowal Institute of Engineering & Technology, Longowal,
2. Branch and bound approach in two stage flow shop scheduling problem, processing time associated with probabilities including Weightage of jobs presented in **National Seminar On Applications of Mathematics In Engineering Sciences** Held On 17th March, 2012 at N.C. College of Engineering, Israna , Panipat
3. Specially Structured N-Job, 3-Machine Flow Shop Scheduling To Minimize The Rental Cost With Separated Set Up Times, Presented paper in NATIONAL CONFERENCE ON EMERGING TRENDS IN ENGINEERING TECHNOLOGIES & SCIENCES FOR SUSTAINABLE DEVELOPMENT ORGANISED BY KRISHI SANSKRITI At JNU NEW DELHI Held On 5-6 June, 2012
4. Minimization of Elapsed Time in N×3 Flow Shop Scheduling Problem, The Processing Time Associated With Probabilities Including Transportation Time, Presented paper in National Seminar on MATHEMATICS & ITS APPLICATIONS Held On December 20, 2012 at Punjabi University Patiala (Punjab)
5. Minimize Rental Cost With Branch And Bound Technique For Nx3 Flow Shop Scheduling Problem Presented Paper In National Conference On Innovative Trends In Mathematical Sciences Held On 30 March 2015 At MMU Mullana
6. Specially Structured two stage flow shop scheduling to minimize the rental cost including Weightage of jobs presented in **national Conference On Recent Advances In Engineering Technology and Environmental Issues** Held On 22-24 February, 2012 at JNC Ch. Devi Lal Memorial College of Engineering , Sirsa (Harayana)
7. Gender Equality, Women Empowerment & Sustainable Development in one day national Seminar on “Innovative Practices for Sustainable Development in India held on 24 February 2018 at Guru Nanak College Killianwali” Sponsored by ICSSR(NWRC)
8. Impact of Social Media on Language in One day National Seminar on “Repercussions of Social Media on Language” held on 16 February 2019 at Guru Nanak College Killianwali” Sponsored by College Development Council, P.U. Chandigarh
9. Use of Mobile and Road Safety in one day Interdisciplinary National Seminar on “Status of Road Safety and Safe Mobility Initiatives in India” held on 21 february 2019 by M.P College for Women Mandi Dabwali Sponsored by DHE , Harayana.

10. Role of Media & Internet in Higher Education in national Seminar on “Role of Media, Social Media and Internet in Higher Education” held on 4 March 2019 by Guru Nanak College Killianwali , Sponsored by NAAC.
11. Optimization of Production Scheduling Using Critical Path Method in National Conference on Computational Techniques & Mathematical Modelling held on march 12, 2022 at D.A.V College Bathinda.

ATTENDED SEMINARS /Webinars

Annexure 5

- Attended ugc sponsored national seminar on “Women Sensitization For Promising Solutions- A Strategy For Inclusive Growth” held on 4 march 2017 at S.S.D. Girls college Bathinda
- Attended one day national seminar on “USAGE AND PROSPECTS OF MATHEMATICS” NMD-2018 in conjunction with NCSTC, DST, Government of India, New Delhi, Punjab State Council for Science and Technology,Punjab, India, held by P.G. department of mathematics, Multani Mal Modi College , Patiala on March 07, 2019
- Participated in Webinar on “COVID-19: Consequences and Strategies For Solutions” held on July 4, 2020 organized by IQAC & Department of Economics, Shri Lal Bhahadur Shastri Arya Mahila College, Barnala.
- Participated in Two Days International Webinar on Artificial Intelligence and Machine Learning, organized by Department of Computer Science, Baba Farid College, Bathinda held on 7th July-8th July 2020.
- Participated in one day International Webinar on “COVID-19: Challenges Faced by Business Environment and the Way Forward” held on July 7, 2020 organized by Department of Business Management and Commerce in Collaboration with IQAC ,Guru Nanak College Killianwali.
- Participated in one day National Webinar on “Sports:A Mean for the Transformation of Life” held on July 8, 2020 organized by Department of Physical Education in Collaboration with IQAC ,Guru Nanak College Killianwali.
- Participated in one day National Webinar on “Decoding the Economic Shock Caused By COVID-19” held on July 9, 2020 organized by Department of Economics in Collaboration with IQAC ,Guru Nanak College Killianwali.
- Participated in one day National Webinar on “Shri Guru Nanak Dev Ji in Non- Shikh Writings:Some Reflections” held on July 9, 2020 organized by Department of History in Collaboration with IQAC ,Guru Nanak College Killianwali.
- Attended International Webinar on “Parvasi Punjabi Sahit Vich Maat-Bhumi Te Vass-Bhumi Da Antar Sanvaad”, on 09th July 2020 , organized by Saheed Udham Singh,Panjab University Constituent college, Gurusahai Distt., Ferozepur, Punjab, India

- Participated in one day National Webinar on “ Badalde Daur Vich Shri Guru Tegh Bahadur Ji Diya Sikhyawan Da Ajoke Smaj Te Parbhav ” held on July 10, 2020 organized by Department of Punjabi in Collaboration with IQAC ,Guru Nanak College Killianwali.
- Participated in one day National Webinar on “ Domestic Violence and Mental Well Being ” held on July 11, 2020 organized by Women Cell in Collaboration with IQAC ,Guru Nanak College Killianwali.
- Attended International webinar on Intelligent Optimisation Techniques And Their Real Life Applications by Department Of Mathematics Punjabi University Patiala on 25 - 27 February 2022.

Organized Seminars/Webinars

- Organized a National Webinar on “A Mathematical Model For Industrial System” as Convenor & Head, Department of Mathematics in collaboration with IQAC, Guru Nanak College Killianwali, Dist. Sri Muktsar Sahib (Pb.), on 13th July, 2020.
- Organized a National Level Quiz Competition on the Eve Celebration of Pi Day as Convenor & Head, Department of Mathematics in collaboration with IQAC, Guru Nanak College Killianwali, Dist. Sri Muktsar Sahib (Pb.), on 12- 14 March, 2022.
- Local Co-ordinator of INit Math camp -2025 (Punjab) at Guru Nanak College Killianwali funded by MTTS .

Workshops

- Participated One Day **WorkShop on Water Conservation Practices** Held on 22nd March, 2012 at MMEC, Mullana.
- Attended National Workshop on **MATLAB & Its Applications** in Engineering held on 20th -21st April,2012 at Maharishi Markandeshwar University Sadopur (Ambala)

FACULTY PROGRAMMES

Annexure 6

- Attended 15-Days Ugc Sponsored Faculty Development Programme Organized By Multani Mal Modi College Patiala From 1 July To 15 July 2014
- Attended Faculty Development Programme Organized By Guru Nanak College Killianwali held in January 2019
- Attended Faculty Induction Programme FIP-13 by Kumaun University, Nainital (HRDC) from 30-11-22 to 29-12-24
- Attended Refresher Course in Mathematics & Statistics Sciences by Punjabi University Patiala MMTTC (HRDC) from 04-12-23 to 16-12-23
- Attended NEP 2020 Orientation & Sensitization Programme by Central University of Punjab (MM-TTP) from 18-12-23 to 27-12-23.

SHORT TERM TRAINING PROGRAMME

- Attend one week online short term course on “Essential Tools in Optimization” organized by dept. of Mathematics, Dr. B.R. Ambedkar NIT Jalandhar from 25 june 2020 to 29 june 2020
- Attended UGC- Sponsored Short Term Course on Advance Statistical Tools in Research Methodology by Doctor Hari Singh Gour Vishwavidyalaya (HRDC) from 14-02-24 to 20-02-24