

DR SATVIR SINGH



Father's/Mother's Name	Mohinder Singh / Jaswinder Kaur
Date of Birth / Nationality	07-12-1975 / Indian
Gender / Marital Status	Male / Married
Mailing Address	Department of ECE IKGPTU Main Campus Jalandhar-Kapurthala Highway, Kapurthala(PB)
Email ID	DrSatvir.in@gmail.com
Mobile Contact	+91-8427680001

EDUCATIONAL QUALIFICATIONS

S. No.	Name of Course	Name of Board/ University	Institute	Year of Passing	Division
1.	Matric	PSEB Mohali	Govt. Sr. Sec. School Phagwara	1992	1 st
2.	10+2	PSEB Mohali	Govt. Sr. Sec. School Phagwara	1994	2 nd
3.	Graduation B.Tech. (ECE)	IKGPTU Kapurthala	Dr B R Ambedkar NIT Jalandhar	1998	1 st
4.	Post-Graduation M.E. (ECE)	DU Delhi	Delhi College of Engineering, Delhi	2000	1 st
5.	Ph.D. (ECE)	MDU Rohtak	MDU Rohtak	2011	-

CHRONOLOGICAL LIST OF EXPERIENCE

S. No.	Designation	Pay Scale	Name & Address of Employer	Date From	Date To	Nature of Work/ Duties
1.	Associate Professor	37400-67000	IKGPTU Main Campus, Kapurthala	03.01.2017	Till Date	Teaching
2.	Associate Professor	37400-67000	SBS State Technical Campus, Ferozpur	24.07.2006	03.01.2017	Teaching & Administration
3.	Assistant Professor	12000-18300-420	BRCM College of Engg & Tech, Behal (Bhiwani)	03.08.2000	21.07.2006	Teaching & Administration

RESEARCH AND ACADEMIC CONTRIBUTIONS

(A) RESEARCH PAPERS PUBLISHED

(i) Research Papers published in Refereed Journals

S. No.	Title with page no.	Journal	ISSN / ISBN No.	Whether peer reviewed/indexed (impact factor, if any)	No. of Co-authors
1	Artificial bee colony meta-heuristic for energy-efficient clustering and routing in wireless sensor networks Pages 1-14	Soft Computing, Springer	1432-7643	Peer Reviewed, SCI, Thomson Reuters Impact Factor 1.630	1
2	Energy-efficient hierarchical routing for wireless sensor networks: A Swarm Intelligence Approach Pages 1-24	Wireless Personal Communications, Springer	0929-6212	Peer Reviewed, SCI, Thomson Reuters Impact Factor 0.701	1
3	Performance analysis of energy-efficient routing protocol for wireless sensor networks Pages 126-129	American International Journal of Research in Science, Technology, Engineering and Mathematics	2328-3491	Peer Reviewed	1
4	Classical and Computational Intelligence Based Routing Protocols for Wireless Sensor Networks - A Review Pages 471-475	International Journal of Emerging Technologies in Computational and Applied Sciences	2279-0047	Peer Reviewed	1
5	An Improved Butterfly Optimization Algorithm for Global Optimization Pages 1-7	Advanced Science, Engineering and Medicine	2164-6635	Peer Reviewed	1
6	An improved butterfly optimization algorithm with chaos Pages 1-10	Journal of Intelligent and Fuzzy Systems, IOS Press	1875-8967	Peer Reviewed, SCI, Thomson Reuters, Impact Factor 1.004	1
7	Range-free 3D node localization in anisotropic wireless sensor networks Pages 438-448	Applied Soft Computing, Elsevier	1568-4946	Peer Reviewed, SCI, Thomson Reuters, Impact Factor 2.857	3
8	Multiobjective Gain-Impedance Optimization of Yagi-Uda Antenna Design Using Different BBO Migration Variants Pages 33-48	International Journal of Applied Artificial Intelligence Taylor & Francis	1087-6545	Peer Reviewed, SCI	1
9	Evolutionary Performance of Graded Emigration in BBO for Yagi-Uda Antenna Design	CiiT International Journal of Programmable Device	0974-9624	Peer Reviewed	3

	Optimization Pages 134-139	Circuits and Systems			
10	Comparative Study of GA and PSO Algorithms Pages 91-96	International Journal of Current Engineering and Scientific Research	2394-0697	Peer Reviewed	4
11	BBO Algorithms with Graded Emigration for Yagi-Uda Antenna Design Optimization for Maximal Gain Pages 603-614	International Journal of Computer Information Systems and Industrial Management Applications	2150-7988	Peer Reviewed	2
12	Analysis of Different Ranges for Wireless Sensor Node Localization using PSO and BBO and Its Variants Pages 31-37	International Journal of Computer Applications	0975-8887	Peer Reviewed	2
13	Base Station Localization using Artificial Bee Colony Algorithm Pages 1-5	International Journal of Computer Applications	0975-8887	Peer Reviewed	1
14	An Optimized Low Loss Energy-Aware Routing Protocol for Wireless Sensor Networks Pages 1-4	International Journal of Computer Applications	0975-8887	Peer Reviewed	1
15	A Survey on Energy Efficient Routing in Wireless Sensor Networks Pages 184-189	International Journal of Advanced Research in Computer Science and Software Engineering	2277-128X	Peer Reviewed	1
16	The Firefly Optimization Algorithm: Convergence Analysis and Parameter Selection Pages 48-52	International Journal of Computer Applications	0975-8887	Peer Reviewed	1
17	Designing Yagi-Uda Antenna using Gain-Impedance Multiobjective Optimization Pages 203-213	Journal of Network and Innovative Computing	2160-2174	Peer Reviewed	1
18	Yagi-Uda Antenna Design Optimization for Maximum Gain using different BBO Migration Variants Pages 1-5	International Journal of Computer Applications	0975-8887	Peer Reviewed	1
19	Interval Type-2 Fuzzy System for Autonomous Navigational Control of Non-Holonomic Vehicles Pages 195-200	International Journal of Information Technology and Knowledge Management	0973-4414	Peer Reviewed	1
20	Multi-Objective Gain-Impedance Optimization of Yagi-Uda Antenna using	International Journal of Computer Applications	0975-8887	Peer Reviewed	2

	NSBBO and NSPSO Pages 1-6				
21	Implementation of 3-D Ray Tracing Propagation Model for Indoor Wireless Communication Pages 43-47	International Journal of Electronics Engineering	0973-7383	Peer Reviewed	2

(ii) Research Papers published in Other Reputed Journals

S. No.	Title with page no.	Book Title editor & Publisher	ISSN / ISBN No.	Whether peer reviewed	No. of Co-authors and date of publication
1	Mutation effects on BBO evolution in optimizing Yagi-Uda antenna design Pages 47 - 51	Proceedings of 3rd International Conference on Emerging Applications of Information Technology (EAIT) Publisher-IEEE	978-1-4673-1828-0	Yes	Co-author 1 30 Nov-01 Dec 2012
2	A conceptual comparison of firefly algorithm, bat algorithm and cuckoo search Pages 1-4	Proceedings of International Conference on Control Computing Communication & Materials (ICCCCM) Publisher-IEEE	978-1-4799-1374-9	Yes	Co-author 1 3-4 Aug. 2013
3	Toolbox for genetic algorithm in VC++ Pages 457 - 461	Proceedings of 3rd International Conference on MOOCs, Innovation and Technology in Education (MITE) Publisher-IEEE	978-1-4673-6746-2	Yes	Co-author 3 1-2 Oct. 2015
4	Butterfly algorithm with Levy Flights for global optimization Pages 220 - 224	Proceedings of International Conference on Signal Processing, Computing and Control (ISPCC) Publisher-IEEE	978-1-4799-8435-0	Yes	Co-author 1 4-26 Sept. 2015
5	Meta-heuristic range based node localization algorithm for Wireless Sensor Networks Pages 1-7	Proceedings of International Conference on Localization and GNSS Publisher-IEEE	978-1-4673-2342-0	Yes	Co-author 3 25-27 June 2012
6	Mutated firefly algorithm Pages 33-38	Proceedings of International Conference on Parallel, Distributed and Grid Computing (PDGC) Publisher-IEEE	978-1-4799-7682-9	Yes	Co-author 3 11-13 Dec. 2014
7	NSBBO for gain-impedance optimization of Yagi-	Proceedings of World Congress on Information and Communication Technologies	978-1-4673-4806-5	Yes	Co-author 3 30.10.2012- 02.11.2012

	Uda antenna design Pages 856-860	(WICT) Publisher-IEEE			
8	Speedup Genetic Algorithm Using C-CUDA Pages 1355-1359	Proceedings of 5th International Conference on Communication Systems and Network Technologies (CSNT) Publisher-IEEE	978-1-4799-1796-9	Yes	Co-author 3 4-6 April 2015
9	Computational Intelligence based algorithm for node localization in Wireless Sensor Networks Pages 431-438	Proceedings of 6th IEEE International Conference Intelligent Systems Publisher-IEEE	978-1-4673-2276-8	Yes	Co-author 3 6-8 Sept. 2012
10	Range Based Wireless Sensor Node Localization Using PSO and BBO and Its Variants Pages 309-315	Proceedings of International Conference on Communication Systems and Network Technologies (CSNT) Publisher-IEEE	978-1-4673-5603-9	Yes	Co-author 2 6-8 April 2013
11	Evolutionary performance of BBO and PSO algorithms for Yagi-Uda antenna design optimization Pages 861-865	Proceedings of World Congress on Information and Communication Technologies (WICT) Publisher-IEEE	978-1-4673-4806-5	Yes	Co-author 2 30.10.2012-02.11.2012
12	Fuzzy FPGA based captive power management Pages X-X	Proceedings of IEEE Power India Conference Publisher-IEEE	0-7803-9525-5	Yes	Co-author 1 2006
13	Computational Intelligence based metaheuristic for energy-efficient routing in wireless sensor networks Pages 4460-4467	Proceedings of IEEE World Congress on Computational Intelligence Publisher-IEEE	978-1-5090-0623-6	Yes	Co-author 1 24-26 July 2016
14	Performance evaluation of CI based routing protocols for WSNs Pages 15-20	Proceedings of International Conference on Computing, Communication and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 1 8-9 Aug 2016
15	Optimization techniques on gpu Pages 566-568	Proceedings of International Multi Track Conference on Science, Engineering & Technical Innovations CTIMT Jalandhar		Yes	Co-author 1 22-23 May, 2015
16	Speedup of type-1 fuzzy logic systems on	Proceedings of International Conference on	978-93-83842-68-1	Yes	Co-author 3 8-9 Aug

	graphics processing units using cuda Pages 267-271	Communication, Computing and Systems Publisher-Excel India Publisher			2016
17	Application of type-2 fuzzy logic - a review Pages 259-263	Proceedings of International Conference on Communication, Computing and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 4 8-9 Aug 2016
18	Fuzzy systems using gpgpu - a survey Pages 238-241	Proceedings of International Conference on Communication, Computing and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 1 8-9 Aug 2016
19	Biogeography based optimization for gain maximization of fifteen-element yagi-uda antenna Pages 204-208	Proceedings of International Conference on Communication, Computing and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 2 8-9 Aug 2016
20	A survey on face detection techniques Pages 176-179	Proceedings of International Conference on Communication, Computing and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 1 8-9 Aug 2016
21	Performance research on firefly optimization algorithm with mutation Pages 168-172	Proceedings of International Conference on Communication, Computing and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 1 8-9 Aug 2016
22	A comprehensive survey on various evolutionary algorithms on gpu Pages 83-88	Proceedings of International Conference on Communication, Computing and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 2 8-9 Aug 2016
23	Performance evaluation of ci based routing protocols for WSNs Pages 15-20	Proceedings of International Conference on Communication, Computing and Systems Publisher-Excel India Publisher	978-93-83842-68-1	Yes	Co-author 1 8-9 Aug 2016
24	Fuzzy logic based stadium lights controller Pages 618-624	Proceedings of International Conference on Cognitive Systems NIIT/Pheonix Pub. House	81-7484-031-1	Yes	Co-author 1 February 2006
25	Comparative analysis of qos parameters in wireless sensor networks using ant colony optimization Pages 142-145	Proceedings of International Conference on Control, Communication and Computer Technology Inderscience	978-93-82208-76-1	Yes	Co-author 1 24 March 2013

26	Cuda for gpgpu applications - a survey Pages 189-192	Proceedings of National Conference on Contemporary Techniques & Technologies in Electronics Engineering DCRUST Murthal	978-81925727-0-3	Yes	Co-author 3 13-14 March 2013
27	Performance of pso with different ranges for wireless sensor node localization Pages 184-188	Proceedings of National Conference on Contemporary Techniques & Technologies in Electronics Engineering DCRUST Murthal	978-81925727-0-3	Yes	Co-author 2 13-14 March 2013
28	Evolutionary performance comparison of bbo and pso variants for yagi-uda antenna gain maximization Pages 178-183	Proceedings of National Conference on Contemporary Techniques & Technologies in Electronics Engineering DCRUST Murthal	978-81925727-0-3	Yes	Co-author 2 13-14 March 2013
29	Stochastic algorithms for 3d node localization in anisotropic wireless sensor networks Pages 1-14	Proceedings of 7th International Conference on Bio-Inspired Computing: Theories and Applications (BIC-TA 2012) Springer India	978-81-322-1038-2	Yes	Co-author 3 14-16 Dec 2013
30	Captive power management using op-amp based flc Pages 160-166	Proceedings of Asian Conference on Intelligent Systems and Networks IST Klawad	-	Yes	Co-author 1 February 2006
31	Conceptual model of Butterfly algorithm for Global optimization	National Conference on Latest Initiatives and innovations in Communication and Electronics CU Chandigarh	-	Yes	Co-author 1 April 2015

(B) PUBLICATIONS OTHER THAN JOURNAL ARTICLES
(Books, Chapters in books)

(i) Subject Books, published by National level publishers, with ISBN/ISSN

S. No.	Book Title	Type of Book & Authorship	Publisher & ISSN/ISBN No.	Whether peer reviewed	No. of Co-authors and date of publication
1	Proceeding on International Conference on Communication, Computing and Systems 2014	Conference Proceedings	978-93-83842-68-1	No	3

(ii) Chapters in Books published by National & International level publishers with ISBN/ISSN

S. No.	Title with page no.	Type of Book & Authorship	Publisher & ISSN/ISBN No.	Whether peer reviewed	No. of Co-authors and date of publication
1	'Nature-Inspired Toolbox to Design and Optimize Systems' in Machine Learning Algorithms for Problem Solving in Computational Applications: Intelligent Techniques Pages 273-291	Reference Book & Main Author	IGI Global USA ISBN 9781466618343	Yes	2
2	'A PSO-Based Framework for Designing Fuzzy Systems from Noisy Data Set', in Machine Learning Algorithms for Problem Solving in Computational Applications: Intelligent Techniques Pages 210-228	Reference Book & Main Author	IGI Global USA ISBN 9781466618343	Yes	2
3	'Realizing Interval Type-2 Fuzzy Systems with Type-1 Fuzzy Systems', in Cross-Disciplinary Applications of Artificial Intelligence and Pattern Recognition: Advancing Technologies Pages 412-427	Reference Book & Author	IGI Global USA ISBN 9781613504291	Yes	3

(C) RESEARCH PROJECTS UNDERTAKEN**(i) Sponsored Projects (Major/Minor)**

S. No.	Title	Agency	Period	Grant / Amount Mobilized (Rs. Lakhs)
1	Modernization of Microcontroller and Embedded Systems Lab	AICTE	2008-2010	5
2	Modernization of VLSI Lab	AICTE	2011-2012	10
3	Two-Week FDP on Nature Inspired Computational Intelligence	AICTE & TEQIP	May 6-17, 2013	1.98
4	Two-Week FDP on Intelligent Computational Techniques	AICTE	July 4-15, 2011	1.5
5	One-Week FDP on Applied Soft Computing	TEQIP-II, SBSSTC Ferozepur	Nov 26-30, 2012	2
6	International Conference on Communication, Computing and Systems	TEQIP-II, SBSSTC Ferozepur	Aug 8-9, 2014	2

(D) RESEARCH GUIDANCE

S. No.	Degree	Number Enrolled	Thesis Submitted	Degree Awarded
1.	Ph.D.	8	1	0
2.	M.Tech.	0	0	12

(E) LECTURES DELIVERED IN CONFERENCES/ SEMINAR**(i) Invited Lectures/Papers**

S. No.	Title of the Invited Lecture / paper	Date(s) of the event	Organized by	Whether International / National / State / University
1	Type-2 Fuzzy Logic Systems... Advancements	18-02-11	Invited Lecture in International Multi-Conference on Intelligent Systems Sustainable, New and Renewable Energy Technology and Nanotechnology at IST Kalawad, Yamunanagar	International
2	Type-1 and Type-2 Fuzzy Logic System	26-02-10	Invited Lecture in International Conference on Intelligent Systems and Networks at IST Kalawad, Yamunanagar	International
3	Type-2 Fuzzy Logic System... Modeling and Simulation	14-02-09	Invited Lecture in International Conference on Intelligent Systems and Networks at IST Kalawad, Yamunanagar	International
4	Impact of Artificial Intelligence on	02-06-15	Invited Lecture in AICTE-TEQIP sponsored Faculty Development	National

	Modern Research		Programme on Research Techniques at SBSSTC Ferozepur	
5	IT Skills for Teachers	03-06-14	Invited Lecture in PTU sponsored Faculty Development Programme on How to make Teaching more Effective at DBGI Moga	University
6	Nature Inspired Computing	07-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
7	Type-1 Fuzzy Systems	07-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
8	LaTeX Installation & Exploring Templates	09-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
9	Research Paper Writing using LaTeX Templates	10-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
10	Particle Swarm Optimization	10-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
11	Designing Type-2 Fuzzy Systems using PSO	10-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
12	LaTeX Installation & Exploring Templates	13-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
13	MATLAB Installation & Introduction	15-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
14	Book/Thesis Writing using	16-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development	National

	LaTeX Templates		Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	
15	Artificial Neural Networks	17-05-13	Invited Lecture in AICTE-TEQIP sponsored Faculty Development Programme on Nature Inspired Computational Intelligence at SBSSTC Ferozepur	National
16	Swarm Intelligence in Research	12-06-12	Invited Lecture in TEQIP Sponsored One-Week Short Term Course on Research Methodologies: Tools and Techniques at SBSSTC Ferozepur	National
17	Particle Swarm Optimization	30-11-12	Invited Lecture in TEQIP Sponsored One-Week Short Term Course on Applied Soft Computing at SBSSTC Ferozepur	National
18	Use of LaTeX Type-Setting	30-11-12	Invited Lecture in TEQIP Sponsored One-Week Short Term Course on Applied Soft Computing at SBSSTC Ferozepur	National
19	Fuzzy Logic Systems	29-11-12	Invited Lecture in TEQIP Sponsored One-Week Short Term Course on Applied Soft Computing at SBSSTC Ferozepur	National
20	Latex Type-Setting System	16-05-12	Invited Lecture in PTU sponsored Faculty Development Programme on Evolutionary Computing Techniques held at Adesh Institute of Engineering & Technology, Faridkot, Punjab	University
21	Fuzzy Logic Systems	16-05-12	Invited Lecture in PTU sponsored Faculty Development Programme on Evolutionary Computing Techniques held at Adesh Institute of Engineering & Technology, Faridkot, Punjab	University
22	Computational Intelligence in Research	29-05-12	Invited Lecture in PTU sponsored Faculty Development Programme on Research Methodology for Engineering & Management held at LalaLajpat Rai Institute of Engineering & Technology, Moga, Punjab	University
23	Artificial Intelligence in IT	05-06-12	Invited Lecture in PTU sponsored Faculty Development Programme on Current & Emerging Trends in Information Technology held at Desh Bhagat Group of Institutes, Moga, Punjab	University
24	Latex Type-Setting System	06-06-12	Invited Lecture in PTU sponsored Faculty Development Programme on	University

			Current & Emerging Trends in Information Technology held at Desh Bhagat Group of Institutes, Moga, Punjab	
25	Latex Type-setting for Producing Quality Documents	02-07-12	Invited Lecture in PTU sponsored Faculty Development Programme on Recent Tools in Research: MATLAB, Latex, & Evolutionary Algorithms held at Rayat-Bahra College of Engineering & Nano Technology for Women (RBCENTW), Hoshiarpur, Punjab	University
26	Type-1 and Type-2 Fuzzy Logic Systems	06-07-11	Invited Lecture in AICTE sponsored Staff Development Programme (SDP) on Intelligent Computational Techniques held at SBS College Engineering Technology, Ferozpur, Punjab	National
27	Particle Swarm Optimization	07-07-11	Invited Lecture in AICTE sponsored Staff Development Programme (SDP) on Intelligent Computational Techniques held at SBS College Engineering Technology, Ferozpur, Punjab	National
28	LaTeX Type Setting	08-07-11	Invited Lecture in AICTE sponsored Staff Development Programme (SDP) on Intelligent Computational Techniques held at SBS College Engineering Technology, Ferozpur, Punjab	National
29	Introduction to MATLAB	13-07-11	Invited Lecture in AICTE sponsored Staff Development Programme (SDP) on Intelligent Computational Techniques held at SBS College Engineering Technology, Ferozpur, Punjab	National
30	Evolution of Fuzzy Systems (T1 and T2)	04-12-08	Invited Lecture in MHRD/AICTE sponsored Short Term Training Programme on Multiobjective Optimization on Evolutionary Algorithms held at ABV-IIITM, Gwalior, Madhya Pradesh	National
31	Fuzzy Logic Systems	11-04-14	Invited Lecture in One Day National Workshop on Role of Artificial Intelligence & Simulation Tools in Engineering held at CGC Technical Campus, Jhanjheri, Mohali, Punjab	Institute
32	Particle Swarm Optimization	11-04-14	Invited Lecture in One Day National Workshop on Role of Artificial Intelligence & Simulation Tools in	Institute

			Engineering held at CGC Technical Campus, Jhanjheri, Mohali, Punjab	
33	Latex Type Setting	11-04-14	Invited Lecture in One Day National Workshop on Role of Artificial Intelligence & Simulation Tools in Engineering held at CGC Technical Campus, Jhanjheri, Mohali, Punjab	Institute
34	Latex Type-Setting	20-04-13	Invited Lecture in 2-Day National Workshop Computational Methods in Engineering & Mathematics using MATLAB & Mathematica held at Marudhar Engineering College, Bikaner, Rajasthan	National
35	Computational Intelligence: Antenna Design Optimization	13-08-12	Invited Lecture in UGC Sponsored National Seminar on Issues in Cloud Computing and Wireless Communication held at Guru Nanak Dev University Regional Campus, Gurdaspur, Punjab	National
36	Keynote Address	05-02-11	Invited Lecture in National Workshop on sponsored by UGC, New Delhi held at Lyallpur Khalsa College, Jalandhar, Punjab	National
37	PSO Evolution of Fuzzy Systems	04-05-11	Invited Lecture in Short Term Course on Fuzzy Logic Applications in Engineering organized by NITTTR Chandigarh held at Beant College of Engineering Gurdaspur, Punjab	National
38	Swarm Intelligence and Its Applications	28-07-10	Invited Lecture in National Workshop on Intelligent Systems and Engineering held at IST Klawad, Yamunanagar, Haryana	National
39	Performance Research on Firefly Optimization Algorithms with Mutation	08-08-14	Paper Presented in International Conference on Communication, Computing & Systems held at SBS College Engineering Technology, Ferozepur, Punjab	International
40	Applications of Type-2 Fuzzy Logic - A Review	08-08-14	Paper Presented in International Conference on Communication, Computing & Systems held at SBS College Engineering Technology, Ferozepur, Punjab	International
41	Fuzzy Systems using GPGPU - A Survey	09-08-14	Paper Presented in International Conference on Communication, Computing & Systems held at SBS College Engineering Technology, Ferozepur, Punjab	International
42	A Survey on Face	08-08-14	Paper Presented in International	International

	Detection Techniques		Conference on Communication, Computing & Systems held at SBS College Engineering Technology, Ferozepur, Punjab	
43	Speedup of Type-1 Fuzzy Logic Systems on Graphical Processing Units using CUDA	09-08-14	Paper Presented in International Conference on Communication, Computing & Systems held at SBS College Engineering Technology, Ferozepur, Punjab	International
44	A Comprehensive on Various Evolutionary Algorithms on GPU	09-08-14	Paper Presented in International Conference on Communication, Computing & Systems held at SBS College Engineering Technology, Ferozepur, Punjab	International
45	Bio-geography Based Optimization for Gain Maximization of Fifteen-Element Yagi-Uda Antenna	08-08-14	Paper Presented in International Conference on Communication, Computing & Systems held at SBS College Engineering Technology, Ferozepur, Punjab	International
46	Type-2 Fuzzy Logic System - Modeling & Simulation	14-02-09	International Conference on Intelligent Systems & Paper Presented in Networks held at IST Klawad, Yamunanagar, Haryana	International
47	Mobile Robot Navigation using IT2 FLS	14-03-14	Paper Presented in IEEE National Conference on Intelligence Systems held at Hindu College of Engineering, Sonapat, Haryana	National
48	Fuzzy Logic Based Stadium Lights Controller	17-12-99	Paper Presented in International Conference on Cognitive System held at Hamdard Convention Center, New Delhi	International
49	Optimization Techniques	09-07-15	Invited Lecture in FDP on 'Latest issues in Electronics & Communication Engineering' at Chandigarh University, Gharuan, Mohali	University
50	Keynote Address	17-04-15	Invited Talk in National Conference on Latest Initiatives & Innovations in Communication & Electronics at Chandigarh University, Gharuan, Mohali	National
51	Optimization Techniques	15-07-16	Invited Lecture in FDP on 'Optimization Techniques' at Chandigarh University, Gharuan, Mohali	University
52	Performance Evaluation	07-07-15	Invited Lecture in PTU Sponsored FDP on 'NBA Accreditation' held at	State

			DeshBhagat Foundation Group of Institutions, Moga, Punjab	
53	LaTeX Type Setting for Writing Quality Documents	29-09-15	Invited Lecture in TEQIP-II Sponsored Academic Activities	University
54	Influence of Iterations on the Genetic Algorithm using Benchmark Functions	24-08-15	Paper presentation in National Conference on Communications, Computing and System held at SBSSTC Ferozepur	National
55	Optimization using GA and PSO	13-01-16	Invited Lecture on MATLAB and Its Hardware Interface through ICT during 11-15 January 2016	National
56	Optimization using MATLAB	13-01-16	Invited Lecture on MATLAB and Its Hardware Interface through ICT during 11-15 January 2016	National
57	LaTeX - A markup language	17-11-15	Invited Lecture in 1-Day National Workshop on LATEX-A Powerful Tool for Thesis & Report Writing at CT Institute of Technology & Research, Jalandhar	National

(F) DEVELOPMENT OF E-LEARNING DELIVERY PROCESS/MATERIAL

S. No.	Title of e-learning process/material developed	Number of Module	Sponsored by (Academic Bodies/Associations)
1	Video Lecture on Optimization Problem hosted online at https://www.youtube.com/watch?v=RZDTXAEoAKM	2	NITTTR Chandigarh
2	LaTeX Templates and Downloadable material for students at www.DrSatvir.in	1	Self
3	Intranet website to assess Outcome Based Education and conduct End-Sem-Examination at SBSSTC Ferozepur	1	SBSSTC Ferozepur

PROFESSIONAL DEVELOPMENT, CO-CURRICULAR AND EXTENSION ACTIVITIES

- (a) Student related co-curricular, extension and field based activities (such as extension work through NSS/NCC and other channels, cultural activities, subject related events, advisement and counselling).

S. No.	Description
(i)	Discipline related co-curricular activities (e.g. remedial classes, career counselling, study visit, student seminar and other events.)
	a) Student Projects Coordinator b) Coordinator, PG Classes c) Training & Placement Officer d) Organized National & International Conferences e) Member Admission Committee f) Chairman, SC/ST Grievance Cell g) Member Women Grievance Cell
(ii)	Other co-curricular activities (Cultural, Sports, NSS, NCC etc.)
(iii)	Extension and dissemination activities (public / popular lectures / talks / seminars etc.)
	a) Examination Software Development b) Officer Incharge, College Website (www.sbsstc.ac.in) for staff and students

- (b) Contribution to corporate life and management of the department and institution through participation in academic and administrative committees and responsibilities.

S. No.	Description
(i)	Administrative responsibility (including as Dean / Principal/ Chairperson / Convener / Teacher-in-charge / similar other duties that require regular office hours for its discharge)
	a) Procurement Coordinator, TEQIP-II, SBSSTC Ferozpur b) Head, ECE Department c) Incharge, Guest House d) Dean, Planning & Development e) Purchase Officer, Central Stores f) Member, Internal Quality Insurance Committee
(ii)	Participation in Board of Studies, Academic and Administrative Committees
	a) Chairman, Advertisement Committee e) Member, NBA Steering Committee c) Member, BOS EEE, MRSPTU Bathinda d) Member, BOS ECE, MRSPTU Bathinda f) Faculty Member, BOG SBSSTC Ferozpur b) Member, Academic Council, SBSSTC Ferozpur g) Member, Departmental Promotion Committee

- (c) Professional development activities (such as participation in seminars, conferences, short term training courses, talks, lectures, membership of associations, dissemination and general articles, etc.)

S. No.	Description
(i)	Participations in Conferences, short term training courses
	a) Delivered expert talks in Conferences and FDPs**

	b) Attended Faculty Development Programmes of 28 Weeks in 16 years of experience c) Conducted Faculty Development Programmes of 6 Weeks in 16 years of experience
(ii)	Memberships of associations
	a) Member IETE, Member ISTE
(iii)	Dissemination and general articles, etc.