



CURRICULUM VITAE

Name Dr. JASPREET SINGH DHILLON
Father's Name Sh. HARCHARAN SINGH DHILLON
Date of Birth 11 May 1962
Gender Male
Nationality Indian
Present Position Professor

Permanent Address

Dr. Jaspreet Singh Dhillon
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Present Employment Address

Dr. Jaspreet Singh Dhillon, Professor
Electrical & Instrumentation Engineering Department
Sant Longowal Institute of Engineering & Technology,
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EDUCATION: (Annexure-I)

1996 **Doctor of Philosophy**
University: Thapar Institute of Engineering & Technology, Patiala
Title of Thesis: Economic Dispatch Studies on Electric Power Systems.

1987 **Master of Technology (Electrical Engineering)**
Department: Electrical Engineering
College: College of Agricultural Engineering
University: Punjab Agricultural University, Ludhiana
Marks: 81.25%
Title of Thesis: Programming a Microprocessor for control of Multi species Population

1983 **Bachelor of Science in Engineering (Electrical)**
College: Guru Nanak Dev Engineering College, Ludhiana
University: Panjab University, Chandigarh
Marks: 62.92%

EMPLOYMENT: (Annexure-II)

August, 2002 to date (14 years, 1 months)	Professor , Department of Electrical & Instrumentation Engineering, Sant Longowal Institute of Engineering & Technology, Longowal- 148106, District Sangrur, Punjab, India
Dec., 1992- Aug., 2002 (9 years 7 months)	Assistant Professor , Department of Electrical Engineering, Giani Zail Singh College of Engineering & Technology, Bathinda, Punjab, India
Jun., 1987- Dec., 1992 (5 years, 6 months)	Lecturer , Department of Electrical & Electronics Engineering, Thapar Institute of Engineering & Technology, Patiala, Punjab, India
Sep., 1986- May 1987 (8 months)	Lecturer , Department of Electronics Technology, Guru Nanak Dev University, Amritsar, Punjab, India
Total Teaching Experience: 30 years 04 months	

AREA OF SPECIALIZATION

Economic Operations of Power System, Optimization Techniques, Microprocessors and Control Systems

PUBLICATIONS

• Books written	03 (Annexure-III)
• Publications in Refereed Journals:	
• International	70 (Annexure-III)
• National	03 (Annexure-IV)
	Total: 73
• Publications in symposium/seminar/conferences:	
• International (held Abroad)	12 (Annexure-IV)
• International (held in India)	14 (Annexure-IV)
• National	49 (Annexure-V)
	Total: 75

RESEARCH SUPERVISION

• Ph.D. Thesis Supervised	11 (Annexure-VI)
• Ph.D. Candidates under Supervision (Enrolled)	07 (Annexure-VI)
• M. Tech Thesis Guided:	29 (Annexure-VII)
• B. Tech. Projects Guided:	14 (Annexure-VII)

MEMBERSHIP OF PROFESSIONAL BODIES

- Life Member (LM-08001), System Society of India
- Life Member (LM-21452), Indian Society for Technical Education
- Life member (L-107), Punjab Academic of Sciences Society
- Fellow Member (F-1202347), The Institution of Engineers (India)
- Member (M-93722423), IEEE

LABORATORY DEVELOPMENT

Developed Control and Instrumentation, Microprocessor, Power system and Computational laboratories

ADMINISTRATIVE RESPONSIBILITIES

- Head of Electrical & Instrumentation Engineering Department, with effect from July 15,

- 2015 to date at SLIET, Longowal
- Head of Computer Science & Engineering Department (from July 8, 2012 to October 21, 2013 at SLIET, Longowal)
 - Head of Electrical & Instrumentation Engineering Department (from October 19, 2002 to October 18, 2005 at SLIET, Longowal)
 - Dean, Academics (from March, 2010 to June, 2012 at SLIET, Longowal)
 - Dean, Research & Consultancy (from May 2011 to January, 2012, at SLIET, Longowal)
 - Dean, Administration (from January, 2008 to April, 2009 at SLIET, Longowal)
 - Professor In-charge, Administration (from August 10, 2006 to January 21, 2008 at SLIET, Longowal)
 - Professor In-charge, Training and Placement Cell (from November 2, 2005 to August 10, 2006 at SLIET, Longowal)
 - Professor In-charge, Sponsored Research and Industrial Consultancy (SRIC) (from July, 2004 to July 2005 at SLIET, Longowal)
 - Coordinator Academic affairs (from September 25, 1996 to March 16, 1998, November 9, 1998 to August 13, 1999, and November 11, 2001 to August 6, 2002 at GZSCET, Bathinda)
 - Controller of Examination of Nodal Centre GZSCET, Bathinda, (from September 14, 1997 to August 13, 1999 at GZSCET, Bathinda)
 - Chairman, Time Table Committee (from September 25, 1996 to March 16, 1998 and November 9, 1998 to August 13, 1999 at GZSCET, Bathinda)
 - Warden of Hostel No 3 (from October 27, 1993 to September 1, 1997 at GZSCET, Bathinda)
 - Coordinating Warden (from September 13, 1995 to September 25, 1996 at GZSCET, Bathinda)

SUBJECTS TAUGHT

- Postgraduate level **13 Subjects** (Annexure-VIII)
- Undergraduate level **14 Subjects** (Annexure-VIII)

ADDITIONAL INFORMATION

Organizational Activities

- i. Coordinated Short-term course, Renewable Energy Applications: Practices and Challenges, during December 21-25, 2015 at Sant Longowal Institute of Engineering & Technology, Longowal
- ii. Coordinated jointly National level Conference Computational Intelligence in Electrical Engineering, CIEE-05 during November 18-19, 2005 at Sant Longowal Institute of Engineering & Technology, Longowal
- iii. Coordinated jointly National level Symposium, Emerging Technologies for Efficiency Improvement in Energy Sector, ETEIES-03 during November 8-9, 2003 at Sant Longowal Institute of Engineering & Technology, Longowal
- iv. Coordinated jointly National level Symposium, ReTCA'96 during March 8-9, 1996 at G.Z.S. College of Engineering and Technology, Bathinda
- v. Coordinated short-term course, PC and its Applications, during May 31 - June 14, 1995 at G.Z.S. College of Engineering and Technology, Bathinda.

Professional Courses/training/seminars/workshops Attended

- i. Distributed Control Systems, 11-16 December, 1989, IIT, New Delhi.
- ii. Pre conventional Tutorial on Artificial Neural Networks. 22-25 January 1991, Bangalore
- iii. Microprocessor and Applications. 16-20 December, 1991, Delhi Institute of

- Technology, Delhi
- iv. Artificial Neural Network & Expert System Applications in Power Systems, December 14, 1994, IIT, New Delhi
 - v. Human Values in Technical Education, 22-26 March, 2002, IET, Bhaddal
 - vi. Intellectual Property rights and Patent System in India, October 17-21, 2005, NITTR, Chandigarh.
 - vii. Management Capacity Enhancement Programme, under TEQIP, December 15-20, 2014, IIM Udaipur
 - viii. Statistic Techniques using SPSS under TEQIP_II, 6th October, 2016, Chemical Engineering Department, SLIET, Longowal

Curriculum Development activities in Electrical Engineering Department.

- a. Member of Board of Studies from 1993 to 1995 (3705-3708 dated 27.5.93) of Punjabi University, Patiala.
- b. Member of board of studies since 1998 (02.10.02.1-21 dated 5.9.98) of Punjab Technical University, Jalandhar.
- c. Member of the Research Degree Committee in Electrical & Electronics Engineering for the term ending 31.12.2007 (9839/GM dated 26.10.06)
- d. Member Academic Council SLIET, Longowal
- e. Member, Departmental Research Committee, SLIET, Longowal
- f. Member Board of Studies, (EIE), SLIET, Longowal
- g. BOS member Lovely Professional University, Jalandhar (2004)
- h. Outside expert on the Board of Post Graduate Studies and Research in the Faculty of Engineering & Technology, Punjabi University, Patiala
- i. Member of the Research Degree Committee in Electrical & Electronics Engineering, Panjab University, Chandigarh

Expert Lectures Delivered

20 (Annexure-IX)

Declaration:

I solemnly declare that the foregoing information is complete and correct. I am not aware of any circumstances which may impair my fitness for employment anywhere. I have never been disqualified from University work/appearing in any University examination. I have never been dismissed either from Govt. or from University, college or other Public or Private Organization service. I have never been prosecuted, fined, convicted by the Court of Law for any offence.

(Jaspreet Singh Dhillon)

Place: SLIET, Longowal
Dated: March 21, 2017

ANNEXURE – I

Education: Particulars of all examinations passed and degrees obtained commencing from the High School Level (10th standard/ Matriculation) Examination.

Examination	School / College / Institute	Board/ University/ Institution	Marks Obtained (with Max. Marks)	%age of marks	Distinction/ Class / Division/ Grade	Date of Passing	Duration of course
Matriculation	Govt. High School, Mansa	P.S.Ed.B., Mohali	997 /1500	66.46	First	March, 1976	-
Pre-University (Science Group)	Nehru Memorial College, Mansa	Punjabi University, Patiala	502/800	62.75	First	April, 1977	1 year
Pre-Engineering	Nehru Memorial College, Mansa	Punjabi University, Patiala	397/650	61.07	First	April, 1978	1 year
B.Sc. Engineering (Electrical)	GNE College, Ludhiana	Panjab University, Chandigarh	5034/8000	62.92	First	May, 1983	4 years
Master of Technology (Electrical)	College of Agricultural Engineering	Punjab Agricultural University, Ludhiana	3.25/4.00	81.25	First	April, 1987	2 years
Doctor of Philosophy	Thapar Institute of Engineering & Technology, Patiala	Thapar Institute of Engineering & Technology, Patiala (Deemed University)	-	-	-	September, 1996	3 years

ANNEXURE - II

Employment: Concerning past employments in chronological order, starting with the present one:

S. No.	Organization/ Institute	Position held	Nature of duties/ work	Date of joining	Date of leaving	Last Pay	Scale of pay
1	Sant Longowal Institute of Engg. & Tech., Longowal	Professor	Teaching	07.08.2002	Till date	59710+ 10000/-	PB 37400-67000 + AGP 10000 16400-450-20900-500- 22400 (unrevised)
2	GZS College of Engg. & Tech, Bathinda	Assistant Professor	Teaching	24.12.1992	06.08.2002	16620/-	12000-420-18300 3700-125-4950-150-5700 (Unrevised)
3	Thapar Institute of Engineering & Technology, Patiala	Lecturer	Teaching	06.07.1988	23.12.1992	2725/-	2200-75-2800-100-4000 700-40-1100-50-1600 (Unrevised)
		Lecturer (Temporary)	Teaching	19.06.1987	30.06.1988	780/-	700-40-1100-50-1600
4	GND Univ., Amritsar	Lecturer (Adhoc)	Teaching	03.09.1986	30.05.1987	700/-	700-40-1100-50-1600

Experience: (till March, 2017)

Lecturer: 6 years 2 months
Assistant professor: 9 years 7 months
Professor: 14 years 7 months
Total: 30 years 4 months

ANNEXURE -III

The list of books written and publications in referral journals is given below:

Books

1. D.P. Kothari and **J.S. Dhillon**, Digital Circuits and Design, *Pearson Education, New Delhi*, 2016, ISBN -978-93-325-4353-9
2. D.P. Kothari and **J. S. Dhillon**, Power System Optimization, 2nd edition, *Prentice Hall of India Pvt. Ltd.*, New Delhi, 2011, ISBN -978-81-203-4085-5
3. **J.P.S. Dhillon**, J.S. Dhillon and D. Singh, Principles of Electrical & Electronics Engineering, *Kalyani Publishers*, New Delhi, 2005, ISBN -81-272-2419-7

Refereed Journals

1. Nitin Narang, Era Sharma and **J.S. Dhillon**, Combined heat and power economic dispatch using integrated civilized swarm optimization and Powell's pattern search method, *Applied Soft Computing*, vol.52, pp.190-202, March, 2017
2. Nirbhow Jap Singh, **J.S. Dhillon** and D.P. Kothari, Multi-objective thermal power load dispatch using chaotic differential evolutionary algorithm and Powell's method, *Soft Computing*, January 09, 2017, DOI 10.1007/s00500-016-2473-7, Online, ISSN: 1432-7643 (Print) 1433-7479 (Online), IF: 1.630
3. Tripatjot Singh Panag and **J.S. Dhillon**, Two Stage Grid Classification Based Algorithm for the Identification of Fields Under a Wireless Sensor Network Monitored Area, *Wireless Personal Communications*, 15 October, 2016, Online, DOI 10.1007/s11277-016-3813-8, ISSN: 0929-6212 (Print) 1572-834X (Online), IF0.701
4. Damanpreet Singh and **Jaspreet Singh Dhillon**, Fuzzy based design of digital IIR filter using ETLBO, *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 24, pp.4042-4062, 2016, doi:10.3906/elk-1410-107
5. Kamalpreet Kaur Dhaliwal, **Jaspreet Singh Dhillon**, Integrated cat swarm optimization and differential evolution algorithm for optimal IIR filter design in multi-objective framework, *Circuits, Systems, and Signal Processing*, Vol.36, Issue 1, pp-270-296, January 2017, DOI 10.1007/s00034-016-0304-9, ISSN: 0278-081X (Print) 1531-5878 (Online)
6. Manmohan Singh and **Jaspreet Singh Dhillon**, A simple opposition based greedy heuristic search for dynamic economic thermal power dispatch, *Electric Power Components and Systems*, vol. 44, no. 6, pp. 589-605, April 2, 2016, Online, DOI: 10.1080/15325008.2015.1122113
7. Manmohan Singh and **J.S. Dhillon**, Multiobjective thermal power dispatch using opposition-based greedy heuristic search, *International Journal of Electrical Power and Energy Systems*, Vol. 82, pp.339-353, 2016
8. Nirbhow Jap Singh, **J.S. Dhillon** and D.P. Kothari, Synergic predator-prey optimization for economic thermal power dispatch problem, *Applied Soft Computing*, Vol. 43, 298-311, 2016
9. Vikram Kumar Kamboj, S.K. Bath and **J.S. Dhillon** Multiobjective multi area unit commitment using hybrid differential evolution algorithm considering import/export and tie-line constraints, *Neural Computing and Applications*, (Online) 14 March, 2016 DOI 10.1007/s00521-016-2240-9
10. D.S. Sidhu, **J.S. Dhillon** and Dalveer Kaur, Hybrid heuristic search method for design of digital IIR filter with conflicting objectives, *Soft Computing*, January, 2016, DOI 10.1007/s00500-015-2023-8, Online, ISSN: 1432-7643 (Print) 1433-7479 (Online), IF: 1.630
11. Vikram Kumar Kamboj, S.K. Bath and **J.S. Dhillon**, Implementation of hybrid harmony/random search algorithm considering ensemble and pitch violation for unit commitment problem, *International Journal of Electric Power and Energy Systems*, vol. 77, pp. 228-249, May 2016
12. D.S. Sidhu, **J.S. Dhillon** and Dalveer Kaur, Design of higher order digital iir low pass filter using hybrid differential evolution, *International Journal of Signal Processing Systems*, vol. 4, no. 1, February 2016, pp. 6-12, ISSN: 2315-4535
13. Vikram Kumar Kamboj, S.K. Bath and **J.S. Dhillon**, A novel hybrid DE-random search approach for unit commitment problem, *Neural Computing and Applications*, Vol. 26, No. 8, November, 2015, pp. 1-23, (Online) DOI: 10.1007/s00521-015-2124-4, online ISSN: 1433-3058
14. Vikram Kumar Kamboj, S.K. Bath and **J.S. Dhillon**, Hybrid HS-random search algorithm considering ensemble and pitch violation for unit commitment problem, *Neural Computing and*

- Applications*, Vol. 26, No. 8, November, 2015, pp. 1-26, (Online) DOI: 10.1007/s00521-015-2114-6, online ISSN: 1433-3058
15. D.S. Sidhu, **J.S. Dhillon** and Dalvir Kaur, Design of digital iir filter with conflicting objectives using hybrid gravitational search algorithm, *Mathematical Problems in Engineering*, vol. 2015, Article ID 282809, 16 pages, 2015. doi:10.1155/2015/282809, ISSN: 1024-123X, e-ISSN: 1563-5147, SCI (IF:1.082)
 16. Vikram Kumar Kamboj, S.K. Bath and **J.S. Dhillon**, Solution of non-convex economic load dispatch problem using Grey Wolf Optimizer, *Neural Computing and Applications*, Vol. 26, No. 5, July, 2015, pp.1-16, (online), DOI 10.1007/s00521-015-1934-8, online ISSN: 1433-3058
 17. Ranjit Kaur, Manjeet Singh Patterh and **J.S. Dhillon**, A new greedy search method for the design of digital IIR filter, *Journal of King Saud University –Computer and Information Sciences*, vol. 27, No. 4, pp. 278–287, 2015, ISSN: 1319-1578
 18. Kamalpreet Kaur Dhaliwal and **Jaspreet Singh Dhillon**, On the design of optimal digital IIR BP filter using opposition aided cat swarm optimization algorithm, *International Journal of Engineering Research and General Science*, vol. 3, Issue 3, May-June, 2015, pp.736-743, ISSN: 2091-2730
 19. Damanpreet Singh and **J.S. Dhillon**, Design of optimal IIR digital filter using Teaching-Learning based optimization technique, *WSEAS Transactions on Advances in Engineering Education*, vol.12, Article 2, 2015, pp. 9-18, ISSN: 1790-1979, E-ISSN: 2224-3410
 20. K.K. Dhaliwal and J.S. Dhillon, Implementation of opposition based biogeography-based optimization for optimal digital iir filter design, *Vitivinicola*, vol. 30, no. 3, 2015, pp. 326-52, ISSN: 0254-0223
 21. Damanpreet Singh and **J.S. Dhillon**, Design of higher order LP and HP digital IIR filter using the concept of teaching-learning based optimization, *WSEAS Transactions on Signal Processing*, vol. 11, 2015, pp. 29-37, E-ISSN: 1790-5052 / 2224-3488
 22. Damanpreet Singh and **J.S. Dhillon** (2015) Teaching Learning Based Optimization Algorithm for the Optimal Design of Higher Order BP and BS IIR Digital Filter. *International Journal of Applied Engineering Research (IJAER)*. 10(3), 2015, pp.7727-42, ISSN: 0973-4562 (Impact factor^{SJR} =0.13).
 23. Damanpreet Singh and **J.S. Dhillon**, IIR band pass and band stop filter design employing teaching-learning based optimization technique, *International Journal of Computer Applications*, vol. 104, no. 14, October, 2014, pp. 38-42,
 24. Damanpreet Singh and **J.S. Dhillon**, Design of IIR digital filter using the concept of teaching-learning based optimization, *Wulfenia Journal*, vol. 21, no. 9, September, 2014, pp. 309-333 ISSN: 1561-882X (Impact factor^{TR} =0.236)
 25. Kamalpreet Kaur and **J.S. Dhillon**, Design of digital IIR filters using integrated cat swarm optimization and differential evolution, *International Journal of Computer Applications*, vol. 99, no. 4, 2014, pp. 28-43
 26. Nitin Narang, **J.S. Dhillon** and D.P. Kothari, Weight pattern evaluation for multiobjective hydrothermal generation scheduling using hybrid search technique, *International Journal of Electrical Power and Energy Systems*, vol. 62, 2014, pp. 665–678
 27. Nitin Narang, **J.S. Dhillon** and D.P. Kothari, Scheduling short-term hydrothermal generation using predator prey optimization technique, *Applied Soft Computing*, vol. 21, 2014, pp. 298–308,
 28. Ranjit Kaur, Manjeet Singh Patterh and **J.S. Dhillon**, Real coded genetic algorithm for design of IIR digital filter with conflicting objectives, *Applied Mathematics & Information Sciences*, vol. 8, no. 5, 2014, pp. 2635-44
 29. Ranjit Kaur, Manjeet Singh Patterh and **J.S. Dhillon**, Design of digital IIR filter with conflicting objectives, *International Review of Electrical Engineering (I.R.E.E.)*, vol. 8, no. 2, March-April, 2013, pp. 879-89
 30. Balraj Singh, **J.S. Dhillon** and Y.S. Brar, Predator Prey Optimization method for the design of IIR Filter, *WSEAS Transactions on Signal Processing*, vol. 9, issue 2, April 2013, pp 51-62 (E-ISSN: 2224-3488)
 31. Balraj Singh, **J.S. Dhillon** and Y.S. Brar, Design of digital IIR filters: A comparison, *International Journal of Electrical, Electronics and Telecommunication Engineering*, vol.44, issue.1, February, 2013, pp. 1108-21 (ISSN:2051-3240)
 32. Balraj Singh, **J.S. Dhillon** and Y.S. Brar, A Hybrid Differential Evolution Method for the Design of IIR Digital Filter, *ACEEE International Journal on Signal & Image Processing*, vol. 4, no. 1, January,

- 2013, pp. 01-10
33. Ranjit Kaur, Manjeet Singh Patterh and **J.S. Dhillon**, Digital IIR Filter Design using Real Coded Genetic Algorithm, *International Journal Information Technology and Computer Science*, vol. 07, 2013, pp. 27-35
 34. Ranjit Kaur, Manjeet Singh Patterh and **J. S. Dhillon**, Design of Optimal L1 Stable IIR Digital Filter using Real Coded Genetic Algorithm, *IAENG International Journal of Computer Science*, vol. 39, no. 4, pp. 01- 21 November, 2012
 35. Nitin Narang, **J.S. Dhillon** and D.P. Kothari, Multi-objective Short-term Hydrothermal Generation Scheduling Using Predator–Prey Optimization, *Electric Power Components and Systems*, vol. 40, issue 15, 2012, pp.1708–1730
 36. Nitin Narang, **J.S. Dhillon** and D.P. Kothari, Multiobjective fixed head hydrothermal scheduling using integrated predator-prey optimization and Powell search method, *Energy*, vol. 47, 2012, pp 237-252
 37. Ranjit Kaur, Manjeet Singh Patterh and **J.S. Dhillon**, Design of Optimal L₁ Stable IIR Digital Filter using Hybrid Optimization Algorithm, *International Journal of Computer Applications* vol. 38, no.2, January 2012, pp. 27-32
 38. **Jaspreet Singh Dhillon** and Manmohan Singh, Generation search method in polar coordinates for optimization of economic emission load dispatch, *International Journal of Advanced Computer and Mathematical Sciences*, vol 2, issue 1, 2011, pp 74-88 (ISSN 2230-9624)
 39. Ranjit Kaur, Manjeet Singh Patterh, **J. S. Dhillon** and Damanpreet Singh, Heuristic Search Method for Digital IIR Filter Design, *WSEAS Transactions on Signal Processing*, vol. 8, issue 3, July 2012, pp 121-134 (E-ISSN: 2224-3488)
 40. Jarnail Singh Dhillon, **J.S. Dhillon** and D.P. Kothari, Real-coded genetic algorithm for stochastic hydrothermal generation scheduling, *Journal of Systems, Science and Systems Engineering*, vol. 20, no.1, March 2011, pp. 87-109 DOI: 10.1007/s11518-011-5158
 41. Lakhwinder Singh and **J.S. Dhillon**, Sensitivity measure for electric power load dispatch problem, *Electric Power Components and Systems*, vol. 38, issue 11, 2010, pp. 1228-1247
 42. Ranjit Kaur, **J.S. Dhillon** and Damanpreet Singh, Multicriterion optimization approach to the design of stable recursive digital filter, *International Journal of Engineering Science and Technology*, Vol. 2, No. 8, 2010, pp. 3515-3524
 43. Lakhwinder Singh and **J.S. Dhillon**, Cardinal priority ranking based decision making for economic-emission dispatch problem, *International Journal of Engineering, Science and Technology*, vol. 1, no. 1, 2009, pp. 272-282
 44. J.S. Dhillon, **J.S. Dhillon** and D.P. Kothari, Economic-emission dispatch using binary successive approximation based evolutionary search, *IET Proceedings-Generation, Transmission and Distribution*, vol.3, no.1, January 2009, pp. 1-16
 45. Lakhwinder Singh and **J.S. Dhillon**, Secure multi-objective real and reactive power allocation of thermal power units, *International Journal of Electrical Power and Energy Systems*, vol. 30, issue 10, December 2008, pp. 594-602
 46. Lakhwinder Singh and **J.S.Dhillon**, Fuzzy based surrogate worth trade-off method for multiobjective thermal power dispatch, *Journal of the Institution of Engineers (India)*, vol. EL-89, December 2008, pp. 19-24
 47. Lakhwinder Singh and **J.S. Dhillon**, Interactive fuzzy decision making for multiobjective load dispatch, *International Journal of Sustainable Energy*, vol. 27, no. 1, March, 2008, pp. 15-27
 48. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Genetic-fuzzy based power scheduling technique for multi-objective load dispatch problem., *International Journal of Power and Energy Systems*, vol. 28, no.1, 2008, Paper No. 203-3824, www.actapress.com
 49. Lakhwinder Singh and **J.S. Dhillon**, Fuzzy satisfying multiobjective thermal power dispatch based on surrogate worth trade-off method, *Electric Power Components and Systems*, vol. 36, no. 1, January, 2008, pp. 93-108
 50. Lakhwinder Singh and **J.S. Dhillon**, Best weight pattern evaluation based security constrained power dispatch algorithm, *Journal of Systems, Science and Systems Engineering*, vol. 16, no.3, September 2007, pp. 287-307

51. Jarnail Dhillon, **J.S. Dhillon** and D.P. Kothari, Heuristic search technique for stochastic multi-objective generation scheduling based on exact B-coefficients, *International Journal of Electrical and Power Engineering*, vol. 1, issue 2, 2007, pp. 222-230
52. Jarnail Dhillon, **J.S. Dhillon** and D.P. Kothari, Multiobjective short-term hydrothermal scheduling based on heuristic search technique, *Asian Journal of Information Technology*, vol. 6, issue 4, April 2007, pp. 447-454
53. S. Jarnail Dhillon, **J.S. Dhillon** and D.P. Kothari, Interactive search based stochastic multi-objective thermal power dispatch, *Asian Journal of Information Technology*, vol. 6, issue 3, March 2007, pp. 314-322
54. Lakhwinder Singh and **J.S. Dhillon**, Fuzzy satisfying multi-objective thermal power dispatch: SWT approach, *Journal of Systems, Science and Systems Engineering*, vol. 16, no.1, March 2007, pp. 88-106
55. Sarbjeet Kaur Bath, **Jaspreet Singh Dhillon** and D.P. Kothari, Security constrained stochastic multi-objective optimal power dispatch, *International Journal of Emerging Electric Power Systems*, vol. 8, issue 1, January, 2007, article 7, www.bepress.com/ijeeps
56. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multi-objective generation allocation using pattern search method, *IEE Proceedings-Generation, Transmission and Distribution*, vol. 153, no. 4, July 2006, pp. 476-484
57. Lakhwinder Singh and **J.S. Dhillon**, Bi-objective thermal load dispatch problem using fuzzy decision approach, *Indian Journal of Power and River Valley Development*, vol. 56, no. 5&6, May-June, 2006, pp. 150-154
58. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Interactive fuzzy satisfying multi-objective generation scheduling based on genetic weightage pattern search, *Journal of the Institution of Engineers (India)*, vol. EL-86, March 2006, pp. 312-318
59. Lakhwinder Singh, **J.S. Dhillon** and R.C. Chauhan, Evaluation of best weight pattern for multiple criteria load dispatch, *Electric Power Components and Systems*, vol. 34, no. 1, January 2006, pp. 21-35
60. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multi-objective generation dispatch by search method, *Asian Journal of Information Technology*, vol. 4, no. 9, 2005, pp. 823-831
61. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Fuzzy satisfying Multi-objective generation scheduling based on simplex weightage pattern search, *International Journal of Electric Power and Energy Systems*, vol. 27, no. 7, 2005, pp. 518-527
62. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Multi-objective load dispatch by evolutionary optimisation technique based weightage pattern search method, *Electric Power Components and Systems*, vol. 33 no.4, April 2005, pp. 431-448
63. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Interactive fuzzy satisfying multi-objective generation scheduling, *Asian Journal of Information Technology*, vol. 3, no. 11, October-December 2004, pp. 973-982
64. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multi-objective generation dispatch, *Electric Power Components and Systems*, vol. 32, no. 11, November 2004, pp. 1083-1103
65. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Fuzzy satisfying stochastic multi-objective generation scheduling by weightage pattern search method, *Electric Power System Research*, vol. 69, Issue 2-3, 2004, pp. 311-320
66. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Genetic-fuzzy logic based weightage pattern search for multi-objective load dispatch problem, *Asian Journal of Information Technology*, vol. 2, no. 4, October-December 2003, pp. 365-373
67. Y.S. Brar, **Jaspreet S. Dhillon** and D.P. Kothari, Multi-objective load dispatch by fuzzy logic based searching weightage pattern, *Electric Power System Research*, vol.63, no.2, 2002, pp. 149-160
68. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Fuzzy decision making in stochastic multi-objective short-term hydrothermal scheduling, *IEE Proceedings-Generation, Transmission and Distribution*, vol. 149, no.2, March. 2002, pp. 191-200
69. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Fuzzy decision making in multi-objective long-term scheduling of hydrothermal system, *International Journal of Electric Power and Energy Systems*, vol. 24, no. 01, January 2001, pp. 19-29

70. **J.S. Dhillon** and D.P. Kothari, The surrogate worth tradeoff approach for multi-objective thermal power dispatch problem, *Electric Power System Research*, vol. 56, no. 02, September 2000, pp. 103-110
71. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Multi-objective Decision Making in Stochastic Economic Dispatch, *Electric Machines and Power Systems*, vol. 23, no. 3, 1995, pp. 289-301
72. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Multi-objective optimal thermal power dispatch, *International Journal of Electric Power and Energy Systems*, vol.16, no.6, December 1994, pp. 383-390
73. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Stochastic economic emission load dispatch, *Electric Power System Research*, vol. 26, no. 3, April 1993, pp.179-186

ANNEXURE -IV

The list of publications in International symposium/seminars/conferences is given below:

1. Lakhwinder Singh and **J.S.Dhillon**, Interactive fuzzy approach for economic-environmental electric power load dispatch, Proceedings of IEEE International Conference on Power Systems Technology (POWERCON 2016), University of Wollongong, NSW, Sydney, Australia, September 28 to October 1, 2016.
2. Tripatjot Singh Panag and **J.S. Dhillon**, Heuristic search algorithm for enhancing the lifetime of wireless sensor networks, 17th International conference on Electrical, Computer and Communication Engineering, London, United Kingdom, August 20-21, 2015, International Science Index 17(8) Part XII, pp.2033-39
3. Damanpreet Singh and **J.S. Dhillon**, Teaching-Learning based optimization technique for the design of LP and HP digital IIR filter. Proceedings 14th International Conference on Signal Processing, Computational Geometry and Artificial Vision (ISCGAV '14), Geneva, Switzerland, December 29-31, 2014, pp. 203-208. ISBN: 978-1-61804-266-8.
4. D.S. Sidhu, **J.S. Dhillon** and Dalveer Kaur, Design of higher order digital IIR low-pass filter using hybrid differential evolution, 6th International Conference on Signal Processing Systems (ICSPPS-2014), Dubai, UAE, December 08-10, 2014.
5. Balraj Singh, **J.S.Dhillon** and Y.S.Brar, *Design of optimal stable Digital IIR Filters using Hybrid Differential Evaluation*, International conference on Complexity, Cybernetics, and Informing Science and Engineering (CCISE 2014), University of Wollongong, NSW, Australia, June 30 to July 04 2014
6. Balraj Singh, Y.S. Brar and **J.S. Dhillon**, *Design Of Higher Order Digital IIR Filters Using Hybrid Differential Evaluation*, International Journal of Science and Arts Conference, Ryerson University, Toronto, May 20-23, 2013
7. Manbir Kaur, Amit Kumar and **Jaspreet Singh Dhillon**, Economic dispatch of multiple fuel based thermal units with valve-point effects using adaptive differential evolution, 5th International Conference on Computer Applications in Electrical Engineering: Recent Advances (CERA-13), Roorkee, October, 3-5, 2013,
8. Lakhwinder Singh and **J.S. Dhillon**, Interactive Fuzzy Satisfying Approach for Combined Economic-emission Dispatch: A Comparison, Proceedings of the International Conference on Electrical and Computer Systems, Ottawa, Ontario, Canada, 22-24 August 2012, Paper No. 111, pp. 1-8
9. Daljit Kaur, Lakhwinder Singh and **Jaspreet Singh Dhillon**, Particle swarm optimization based economic-emission dispatch problem, International conference on power Systems Operation & Control (ICOPS' 10), at GNDEC, Ludhiana, December 20-22, 2010, pp. 128-132
10. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Multi-objective Simultaneous Scheduling of Active and Reactive Power Generation using GA, International Conference: Advances in Energy Conversion Technologies (ICAECT 2010), at Manipal Institute of Technology, Manipal, India, January 7-10, 2010, pp 378-385.
11. Lakhwinder Singh and **J.S. Dhillon**, Fuzzy based best weight pattern for multiobjective thermal power dispatch, Proceedings of International conference on Power Systems (ICPS-2007), Central Power Research Institute, Bangalore, India, December 12-14, 2007, pp. 296-301
12. Jarnail S. Dhillon, **J.S. Dhillon**, and D. P. Kothari, Generation Pattern Search for Different Kinds of Economic Load Dispatch, Proceedings 2007 Large Engineering Systems Conference on Power Engineering (LESCOPE-07), Montreal, Quebec, Canada, October 10-12, 2007, pp. 250-255
13. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multi-objective active and reactive power generation scheduling of thermal stations, Proceedings of International Conference: on Recent Advancements and Applications of Computer in Electrical Engineering (RACE-2007), Engineering College Bikaner, Rajasthan, India, vol. 1, March 24-25, 2007, pp. 13-20
14. Lakhwinder Singh and **J.S. Dhillon**, Interactive fuzzy satisfying approach for real and reactive power dispatch, Proceedings of International conference on Intelligent Systems and Networks, Society for Education and Research, Jagathari, Haryana, India February 23-25, 2007, pp. 570-576
15. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multi-objective load dispatch using GA, Proceedings of International conference on Intelligent Systems and Networks, Society for Education and Research, Jagathari, Haryana, India, February 23-25, 2007, pp. 393-403

16. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Multiobjective Load Dispatch Based on Genetic-Fuzzy Technique, Power Systems Conference and Exposition-PSCE'06, IEEE PES, Sheraton Atlanta in Atlanta, Gorgia, October 30-November 1, 2006, pp. 931-937, Paper No. 08.6 (ISBN: 1-4244-0177-1(Print), 1-4244-0178-X(Online), Cited-4)
17. Lakhwinder Singh and **J.S. Dhillon**, Cardinal Priority Ranking based Multiobjective Thermal Power Dispatch with Line Flow Constraints, Proceedings of International Conference on Challenges and Strategies for Sustainable Energy, Efficiency and Environment, U.P. Technical University, Lucknow, June 10-11, 2006, pp. 371-382
18. Lakhwinder Singh and **J.S. Dhillon**, Surrogate worth trade-off method for economic-emission dispatch, Power Systems Conference: Advanced metering, Protection Control, Communication and Distributed Resources (PS'06), Clemson University, Clemson, SC, USA, March 14-17, 2006, pp. 230-235
19. Jaspal Singh Aujla and **J.S. Dhillon**, Interactive multiobjective optimization based on Hooke-Jeeves method, Proceedings Asian Conference on Intelligent Systems & Networks (AISN-2006), Jagadhari, February 24-25, 2006, pp. 123-129
20. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Simplex search technique of weightage pattern search for multiobjective problem, Proceedings of International Conference on Computer Applications in Electrical Engineering: Recent Advances (CERA05), Roorkee, September 29- October 1, 2005, pp. 168-175
21. Lakhwinder Singh and **J.S. Dhillon**, Bi-objective thermal load dispatch problem using fuzzy decision approach, Proceedings of International Conference on Computer Applications in Electrical Engineering: Recent Advances (CERA05), Roorkee, September 29- October 1, 2005, pp. 109-114
22. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multiobjective generation scheduling using evolutionary search based genetic algorithm, Proceedings of International Conference on Computer Applications in Electrical Engineering: Recent Advances (CERA05), Roorkee, September 29 – October 1, 2005, pp. 66-74
23. Yadwinder S. Brar, Jarnail S. Dhillon, **Jaspreet S. Dhillon** and D.P. Kothari, Evolutionary search technique for optimal power scheduling, Proceedings of the International conference on Power Systems, ICPS 2004, vol -II pp. 658-663, Nov. 3-4, 2004, Kathmandu, Nepal
24. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Fuzzy logic approach for generation dispatch of electric power system with conflicting objectives, Power systems Conference and Exposition, IEE PES, New York, October 10-13, 2004, pp- 1289-1296, Paper No. 04PS0718 (ISBN: 0-7803-8718-X, Cited 1)
25. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Multiobjective Stochastic Optimal Thermal Power Dispatch, Proceedings of XVI Annual Convention and Exhibition (ACE'90), IEEE Bangalore, January 23-25, 1991, pp.136-140.
26. R.K. Varshney and **J.S. Dhillon**, A Microprocessor Controller for Multi-species Populations, International Symposium on Electronics Measurement Techniques and Microprocessors in Agriculture, March 8-10, 1988, Jabalpur (India), Presented

ANNEXURE -V

The list of publications in National symposium/seminars/conferences is given below:

1. Kamalpreet Kaur and Jaspreet Singh Dhillon, Implementation of Opposition based Biogeography-based Optimization for Optimal Digital IIR Filter Design, International Journal of Engineering Research & Technology (IJERT), vol.4 (15), pp. 105-114, Conference Proceedings of National Conference on Advanced Computational Methods in Electrical Engineering, (ACMEE-2016) March 25-26, 2016, Sant Longowal Institute of Engineering & Technology, Longowal, Punjab, India
2. Manmohan Singh and **Jaspreet Singh Dhillon**, Stochastic multiobjective thermal load dispatch using random exploratory search, Proceedings of National Conference on Recent Advances in Power Systems (RAPS-14), PEC University of Technology, Chandigarh, 28th June, 2014, pp. 149-160, Excel India publishers, New Delhi ISBN: 978-93-83842-59-9
3. Nitin Narang, **J.S. Dhillon** and D.P. Kothari, Multiobjective short-term hydrothermal generation scheduling, National Conference on Recent advances in Computational Techniques in Electrical Engineering (RACTEE-2011), SLIET-Longowal, February 25-26, 2011, (Abstract), pp 43.
4. Nirbhaw Jap Singh, **J.S. Dhillon** and D.P. Kothari, Hybrid evolutionary search algorithm to solve economic load dispatch, National Conference on Recent advances in Computational Techniques in Electrical Engineering (RACTEE-2011), SLIET-Longowal, February 25-26, 2011, (Abstract), pp 45.
5. Jarnail S. Dhillon and **J.S. Dhillon**, Real coded genetic algorithm for short-term fixed-head hydrothermal generation scheduling, National Conference on Recent advances in Computational Techniques in Electrical Engineering (RACTEE-2010), SLIET-Longowal, March 19-20, 2010, (Abstract), pp 47.
6. S.K. Bath and **J.S. Dhillon**, Study of multiobjective thermal generation scheduling, National Conference on Recent Advances in Computational Techniques in Electrical Engineering (RACTEE-2010), SLIET-Longowal, March 19-20, 2010, (Abstract), pp 48.
7. Ravinder Singh Sekhon and **J.S. Dhillon**, Differential Evolution for Stochastic Dispatch Problem, National Conference on Smart Electronics & Electrical Materials (SEEMs'10), Baba Farid College of Engineering & Technology, Bathinda, March 5-6, 2010, Abstract ID:220, pp.117
8. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Fuzzy Decision based Stochastic Multi-objective Generation Scheduling, National Conference on Emerging Trends in Engineering & Information technology, Guru Teg Bahadur Khalsa Institute of Engineering. & Technology, Chhapianwali, Malout, Punjab, India, November 6-7, 2009, pp D-9-D18.
9. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic Multi-objective Secure Generation Scheduling using Evolutionary Optimization Method, National Conference on Technological Advances and Computational Techniques in Electrical engineering (TACT-2009), NIT, Hamirpur (HP), pp 47-55, March 16-17, 2009
10. Daljeet Kaur, Lakhwinder Singh and **J.S. Dhillon**, Genetic algorithm based thermal load dispatch problem, Proceedings on National Conference on Current Trends in Electrical Engineering (CTEE-08), February 14, 2008, GZS College of Engineering & Technology, Bathinda, Punjab, pp. 42-45
11. Jarnail S. Dhillon, **J.S. Dhillon** and D. P. Kothari, Generation pattern search for multi-objective load dispatch, Proceedings on National Conference on Current Trends in Electrical Engineering (CTEE-08), February 14, 2008, GZS College of Engineering & Technology, Bathinda, Punjab, pp. 46-51
12. Y.S. Brar, **J.S. Dhillon** and D. P. Kothari, Optimization of thermal power generation, 11th Punjab Science Congress held on February 7-9, 2008 at Thapar University, Patiala, paper no. D-02, pp. 46, (abstract)
13. Jarnail S. Dhillon, **J.S. Dhillon** and D. P. Kothari, Evolutionary generation for multi-objective load dispatch problem, 11th Punjab Science Congress held on February 7-9, 2008 at Thapar University, Patiala, paper no. D-18, pp. 48, (abstract)
14. Lakhwinder Singh and **J.S. Dhillon**, Economic-emission load dispatch of thermal units, 11th Punjab Science Congress held on February 7-9, 2008 at Thapar University, Patiala, paper no. D-20, pp. 49, (abstract)
15. Lakhwinder Singh and **J.S. Dhillon**, Fuzzy based multi-objective thermal power dispatch, Proceedings on National Conference on Exploring the Latest Technologies Trends (Innovations 2005),

- BBSBEC, Fatehgarh Sahib, November 25-26, 2005, pp.170-175
16. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Fuzzy decision based stochastic multi-objective generation scheduling, Proceedings on National Conference on Exploring the Latest Technologies Trends (Innovations 2005), BBSBEC, Fatehgarh Sahib, November 25-26, 2005, pp.195-201
 17. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Genetic based optimal power scheduling, Proceedings on National Conference on Computational Intelligence in Electrical Engineering (CIEE-05), SLIET-Longowal, November 18-19, 2005, pp 15-19.
 18. Nirbhowjap Singh, Diljinder Singh and **J.S. Dhillon**, Evolutionary programming for optimal control problem, Proceedings on National Conference on Computational Intelligence in Electrical Engineering (CIEE-05), SLIET-Longowal, November 18-19, 2005, pp 33-37
 19. Jarnail S. Dhillon, **J.S. Dhillon** and D.P. Kothari, Binary search based stochastic multi-objective short-term hydrothermal scheduling, Proceedings on National Conference on Computational Intelligence in Electrical Engineering (CIEE-05), SLIET-Longowal, November 18-19, 2005, pp 90-96.
 20. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multiobjective reactive power generation scheduling, Proceedings on National Conference on Computational Intelligence in Electrical Engineering (CIEE-05), SLIET-Longowal, November 18-19, 2005, pp 97-104
 21. Jaspal Singh Aujla and **J.S. Dhillon**, Fuzzy decision making for interactive multiobjective optimization problems, Proceedings on National Conference on Computational Intelligence in Electrical Engineering (CIEE-05), SLIET-Longowal, November 18-19, 2005, pp 141-146
 22. Lakhwinder Singh and **J.S. Dhillon**, Fuzzy based bi-objective thermal load dispatch problem, Proceedings on National Conference on Computational Intelligence in Electrical Engineering (CIEE-05), SLIET-Longowal, November 18-19, 2005, pp 161-165
 23. R.K. Garg and **J.S. Dhillon**, Real coded genetic algorithm for training of neural network, Proceedings on National Conference on Computational Intelligence in Electrical Engineering (CIEE-05), SLIET-Longowal, November 18-19, 2005, pp 313-317
 24. Jarnail S. Dhillon, **Jaspreet S. Dhillon** and D. P. Kothari, Heuristic search based approach for stochastic multiobjective thermal power dispatch problem, 8th Punjab Science Congress held on February 7-9, 2005 at Punjabi University, Patiala, paper no. D-21, pp 145, (abstract)
 25. S.K. Bath, **J.S. Dhillon** and D. P. Kothari, Stochastic multiobjective thermal active power load dispatch, 8th Punjab Science Congress held on February 7-9, 2005 at Punjabi University, Patiala, paper no. D-22, pp 146, (abstract)
 26. Jarnail S. Dhillon, **Jaspreet S. Dhillon** and D. P. Kothari, Heuristic search based approach for multiobjective thermal power dispatch problem, Proceedings of National Conference on Power Engineering Practices & Energy Management (PEPEM05), Thapar Institute of Engineering & Technology, Patiala, paper no. 130, January 28-29, 2005, pp 311-316.
 27. Lakhwinder Singh and **J.S. Dhillon**, Fuzzy decision making for economic-emission load dispatch problem, Proceedings of National Conference on Power Engineering Practices & Energy Management (PEPEM05), Thapar Institute of Engineering & Technology, Patiala, January 28-29, 2005, pp 325-329
 28. Jarnail S. Dhillon, **Jaspreet S. Dhillon** and D.P. Kothari, Heuristic search based multiobjective generation scheduling, National Conference on "Trends in Computational Techniques in Engineering(TCTE), SLIET-Longowal, October 15-16, 2004, pp 404-409
 29. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Optimal power scheduling based on fuzzy decision making, 7th Punjab Science Congress, DP 15, February 7-9, 2004, GNDU, Amritsar
 30. Jarnail S. Dhillon, **Jaspreet S. Dhillon** and D.P. Kothari, Heuristic search based Multiobjective Load Dispatch, 7th Punjab Science Congress, DII. 2, February 7-9, 2004, GNDU, Amritsar
 31. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Interactive fuzzy satisfaction multiobjective secure generation scheduling based on simplex weightage pattern search, Proceedings of National Systems Conference, NSC-2003, IIT Kharagpur, December 17-19, 2003, pp. 149-154
 32. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multiobjective generation allocation weight search by Hooke-Jeeves Pattern search method, Proceedings of National Systems Conference, NSC-2003, IIT Kharagpur, December 17-19, 2003, pp. 155-160

33. Sanjeev Singh, **J.S. Dhillon** and D.P. Kothari, Evolutionary search methods for load flow problem, Proceedings of National Systems Conference, NSC-2003, IIT Kharagpur, December 17-19, 2003, pp. 393-396
34. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Interactive multiobjective generation scheduling of thermal power station, Proceedings of Emerging Technologies for Efficiency Improvement in Energy Sector ETEIES-03, SLIET, Longowal, 8-9 November, 2003, pp. 67-71
35. S.K. Bath, **J.S. Dhillon** and D.P. Kothari, Stochastic multiobjective generation allocation: weight simulation, Proceedings of Emerging Technologies for Efficiency Improvement in Energy Sector, ETEIES-03, SLIET, Longowal, 8-9 November, 2003, pp. 77-83
36. Lakhwinder Singh, **J.S. Dhillon**, R.C. Chauhan, Fuzzy decision making in genetic algorithm based economic-emission load dispatch, Proceedings of IE(I) Haryana State Centre, All India Seminar on Power and Energy for Sustainable Growth, February 20-21, 2003, CRSCE, Murthal, pp.5-11.
37. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Multiobjective load dispatch by Genetic algorithm, Proceedings of IE(I) Haryana State Centre, All India Seminar on Power and Energy for Sustainable Growth, February 20-21, 2003, CRSCE, Murthal, pp.197-205.
38. Y.S. Brar, **J.S. Dhillon** and D.P. Kothari, Fuzzy logic based multiobjective load dispatch, 6th Punjab Science Congress, DI OR 14, February 7-9, 2003, SLIET, Longowal, pp.90 (abstract)
39. Y.S. Brar, **Jaspreet S. Dhillon** and D.P. Kothari, Genetic algorithm based multi-objective load dispatch, 5th Punjab Science Congress, February 7-9, 2002, TIET, Patiala, pp.49 (abstract)
40. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Fuzzy Decision Making in Short-Term Hydroelectric Power System Scheduling, Proceedings Integrated systems with multiple Technologies, NSC-97, January 23-24, 1998, Hyderabad, pp.298-304, Allied Publishers Ltd. (ISBN: 81-7023-769-6)
41. **Jaspreet S. Dhillon**, S.C. Parti and D.P. Kothari, Multi-objective Generation Scheduling of Hydro Thermal Systems, Proceedings of ReTCA'96, March 8-9, 1996, Bathinda, pp.261-272
42. Y.S. Brar and **J.S. Dhillon**, Reduction of pollution through dispatching in power systems, National seminar on safe environment for 21st century, April, 1995, Bathinda
43. A.K. Arora, Y.S. Brar and **J.S. Dhillon**, Optimal Economic Emission Thermal Power Scheduling, Proceedings 18th NSC-94, January 14-16, 1995, Agra, pp.349-353, Allied Publishers Ltd. (ISBN: 81-7023-426-3)
44. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Multiobjective Thermal Power Dispatch, Emerging Trends in Power Systems, vol.II, December 14-17, 1994, New Delhi, pp-643-647 (ISBN: 81-7023-417-4)
45. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Multiobjective Stochastic Scheduling of Hydrothermal System, Proceedings, NSC-93, December 24-26, 1993, Kanpur, pp.293-298, Allied Publishers Ltd
46. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Stochastic Optimal Generation Scheduling of Hydro-Thermal System, Proceedings of NSC-91 Roorkee, March 13-15, 1992, pp.80-85.
47. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Multiobjective Optimal Thermal Power Dispatch, Proceedings of 14th National System Conference (NSC-90), Aligarh, March 12-14, 1991, pp. 141-145.
48. **J.S. Dhillon**, S.C. Parti and D.P. Kothari, Stochastic Optimal Thermal Power Dispatch, Proceedings of Sixth National Power System Conference -IIT Bombay, June 4-7, 1990, pp.495-498
49. **J.S. Dhillon** and R.K. Varshney, Microprocessor Control of Multi-species Pest Populations, 12th National Systems Conference, 1988, Recent Trends in Applied Systems Research-1988, Coimbatore, pp.381-386. Papyrus Publishing House, N. Delhi.

ANNEXURE -VI

Ph.D. thesis mentioned below have been completed and enrolled till date under my supervision as supervisor/co-supervisor. The titles of these theses are given below

Ph.D. Thesis Supervised

- i. Economic dispatch of electric power system with conflicting objectives, 2004, (*Dr. Yadwinder Singh Brar*, Regd. No. 09.02.02 dated 17.07.2001, Punjab Technical University-Jalandhar-Kapurthala Road, Kapurthala)
- ii. Stochastic economic dispatch of electric power system with conflicting objectives, 2007, (*Dr (Mrs.) Sarabjit Kaur Bath*, Regd. No. 09.03.03 dated 16.01.02, Punjab Technical University-Jalandhar-Kapurthala Road, Kapurthala)
- iii. Fuzzy Logic approach for multiobjective generation dispatch of electrical system, 2009, (*Dr. Lakhwinder Singh*, Regd. No. 02.19.04 dated 20.02.04, Punjab Technical University-Jalandhar-Kapurthala Road, Kapurthala)
- iv. Multiobjective generation dispatch studies on electric power system, 2010, (*Dr. Jarnail Singh Dhillon*, Regd. No. 09.08.04 dated 05.03.04, Punjab Technical University-Jalandhar-Kapurthala Road, Kapurthala)
- v. Heuristic optimization techniques for the design of digital filters, 2013, (*Dr. (Mrs.) Ranjit Kaur*, Regd. No. 23-BBSE (FS)-93, Punjabi University, Patiala)
- vi. Multi-objective hydrothermal scheduling based on heuristic algorithms, 2014, (*Dr. Nitin Narang*, Regd. No.950904010, Thapar University, Patiala)
- vii. Design of digital filters using optimization techniques, 2014, (*Dr. Balraj Singh*, Regd. No. 02.49.10 dated 05.04.10, Punjab Technical University-Jalandhar-Kapurthala Road, Kapurthala)
- viii. Soft computing techniques for the design of digital filters, 2015, (*Dr. Damanpreet Singh*, Regd. No. PCS/1001, Sant Longowal Institute of Engineering & Technology, Longowal)
- ix. Design of Digital IIR Filter in Multiobjective framework, 2016, (*Dr. (Mrs.) Kamalpreet Kaur*, Regd. No. PEI/1105, Sant Longowal Institute of Engineering & Technology, Longowal)
- x. Design of digital filters using hybrid optimization techniques, 2017 (*Dr. Darshan Singh*, Regd. No. 1105011, Punjab Technical University-Jalandhar-Kapurthala Road, Kapurthala)
- xi. Multi-heuristics for electric power system optimization, 2017 (*Dr. Manmohan Singh*, Regd No. SLIET/Ph.D./89/2009, Sant Longowal Institute of Engineering & Technology, Longowal)

Ph.D. Candidates under Supervision (Enrolled)

- i. Mr. NirbhowJap Singh, enrolled at Thapar University, Patiala (Regd. No.950904009)
Topic: Hybrid search method for optimization in real parameter space
- ii. Mrs. Manbir Kaur, enrolled at Thapar University, Patiala (Regd. No.950904015)
Topic: Novel hybrid algorithm for hydrothermal generation scheduling
- iii. Mr. Jatinder Singh Dhaliwal, enrolled at Sant Longowal Institute of Engineering & Technology, Longowal (Regd. No. PEI/1101)
Topic: Profit based unit commitment using memetic algorithm
- iv. Mr. Tripatjot Singh Panag, enrolled at Sant Longowal Institute of Engineering & Technology, Longowal (Regd. No. PEI/1107)
Topic: Wireless sensor networks using hybrid optimization techniques
- v. Mrs. Harvinder Kaur Grewal, enrolled at Sant Longowal Institute of Engineering & Technology, Longowal (Regd. No. PCS/1106)
Topic: Digital Filter Design using Heuristic Optimization Techniques with Conflicting Objectives

- vi. Mr. Diljinder Singh, enrolled at Sant Longowal Institute of Engineering & Technology, Longowal (Regd. No. PEI/1302) Topic: Hybrid optimization algorithm for load dispatch of coordinated wind-thermal electric power system
- vii. Mr. Mohit Kumar, enrolled at Sant Longowal Institute of Engineering & Technology, Longowal (Regd. No. PEI/1501) Topic: Soft computing techniques for generation of electrical power systems.

ANNEXURE -VII

M.E. Thesis Supervised:

M. Tech thesis/ projects pertaining to Power Systems and Computer applications have been completed till date under my supervision. The titles of these thesis/projects are given below

1. Ion motion optimization based economic load dispatch of electric power system, Mr. Saurabh Kumar Singh, July, 2016
2. Water cycle optimization technique for short-range fixed-head hydrothermal scheduling, Mr. Ashok Kumar, July 2016
3. Artificial bee colony optimization technique for the design of digital filter, Mr. Animesh Nagrare, August, 2015
4. Digital IIR filter design using differential evolution algorithm - Mr. Shalabh Kumar Aggarwal, July, 2014
5. Economic dispatch using Particle Swarm Optimization - Mr. Parveen Kumar, July, 2014
6. Hybrid simplex method for optimizing economic load dispatch problem - Arun Kumar Gangwar, July, 2013
7. Biogeography based optimization for optimal hydrothermal scheduling - Manu Maheshwari, July, 2013
8. Group search optimizer for economic load dispatch problem - Farheen Chishti, July, 2013
9. Steepest decent method for economic load dispatch- Arun Sandhu, SLIET Longowal, July, 2012
10. Heuristic search method for hydrothermal generation scheduling – Ombeer Saini, SLIET Longowal, July, 2012
11. Fixed-head hydrothermal generation scheduling using differential evolution method – Niranjana Kumar, SLIET, Longowal, July, 2011
12. Variable-head hydrothermal generation scheduling using differential evolution method – Vinod Kumar Mehta, SLIET, Longowal, July, 2011
13. Differential evolution algorithm for optimization problems- Mukesh Kumar, SLIET, Longowal, July, 2010
14. Particle swarm optimization algorithm for optimization problems- Om Prakash, SLIET, Longowal, July, 2010
15. Gradient based methods for optimization problem – Anshul Varshney, SLIET, Longowal, July, 2010
16. Real Coded Genetic Algorithm for optimization problems- Amit Kushwaha, SLIET, Longowal, August, 2009
17. Evolutionary programming for multiobjective optimization problem- Ramandeep Kaur Bhandohal , SLIET, Longowal, July, 2009
18. Interactive multi-objective optimization using Evolutionary search method- Mandeep Singh, SLIET, Longowal, July, 2008
19. Multiobjective optimization problem using Surrogate Worth Trade-off Method – Dharmesh Kumar, SLIET, Longowal, July 2008
20. Genetic algorithm based training of neural networks - Raj Kumar Garg, SLIET, Longowal, July, 2005
21. Fuzzy decision making for interactive multi-objective optimization problem - Jaspal Singh Aujla,

- SLIET, Longowal, July, 2005
22. Multicriterion optimization approach to the design of digital filters- Ranjit Kaur, SLIET, Longowal, July, 2004
 23. Evolutionary Programming for optimal control problem - Nirbhow Jap Singh, SLIET, Longowal, July, 2004
 24. Artificial Neural Network: An Art of Decision Making - Manbir Kaur, TIET, Patiala, December, 1992
 25. Personal Computer Based Data Acquisition System - Harish Kumar Manchanda, TIET, Patiala, June, 1992
 26. Optimal Thermal Power Dispatch Using Direct Method - Mal Singh Sandhu, TIET, Patiala, May, 1992
 27. Multi-objective Programming software for power engineers - Bijay Shanker Mishra, TIET, Patiala, May, 1992
 28. 2nd order Geometrically Continuous Curves and Surfaces Using Catmull-Rom Splines - Ram Kumar, TIET, Patiala, March, 1992
 29. Artificial Neural Networks: State-of-The-Art - J.S. Bhatia, TIET Patiala, 1991

B.E. Projects Supervised

B.Tech. projects pertaining to Electrical Engineering have been completed till date under my supervision. The titles of worth mentioning projects are given below

1. Microprocessor based stepper motor control,
2. Computer based calculation of transmission loss
3. Microprocessor based decimal arithmetic operation package
4. Microprocessor based level & temperature control of non-interactive system
5. Fuzzy economic dispatch problem
6. Load flow analysis using Gauss Seidel method
7. Artificial Neural Network: An art of decision making
8. Graphical user interfaced load flow solution
9. Graphical user interfaced economic dispatch solution
10. Fuzzy decision making in electrical thermal power dispatch
11. Fuzzy decision making in multi-objective generation scheduling
12. Decoupled load flow solution
13. Short-term Hydro-thermal scheduling
14. Genetic algorithm for economic dispatch

ANNEXURE -VIII

Expert Lectures Delivered

The detail of expert lectures delivered in various occasions is given below:

- 1 “*Neural Networks for modeling & simulation,*” Modeling and Simulation of Engineering Systems, July 15-16, 2002, Department of Mechanical Engineering, BBSB Engineering College, Fatehgarh Sahib.
- 2 “*Genetic Algorithms and power systems*”, All India Seminar, “Trends in Electrical Engineering”, May 28-29, 2004, GTBK Institute of Engineering & Technology, Chhapianwali, Malout.
- 3 “*Hydro-thermal scheduling*” Short-term course on “Concepts and Technology of FACTS”, December 20-31, 2004, GNDEC, Ludhiana
- 4 “*Fundamentals of C programming*”, Refresher course on “Computational Mathematics”, December 12-31, 2005, TIET, Patiala.
- 5 “*Fundamentals of C programming*”, National Level Instructional Workshop on “Computational Aspects of Mathematics (IWCM-06)”, May 22-26, 2006, SLIET, Longowal.
- 6 “*Multi-objective economic operations of power system-I and II*”, Short term course on “Emerging Techniques in power System Operation and Control (PSOC)”, July 03-07, 2006, Department of Electrical Engineering, NIT, Hamirpur (HP).
- 7 “*Evolutionary programming & its applications using C/C++*”, National Level Instructional Workshop on “Computational Aspects of Mathematics (IWCM-08)”, December, 22-26, 2008, SLIET, Longowal
- 8 “*Search techniques for optimization problems*”, AICTE sponsored staff development program on “High performance computing: Issues and Applications (HPc-2009)”, June 29 – July 10, 2009, SLIET, Longowal.
- 9 “*Soft computing optimization techniques for electric power system operation*”, National conference on Smart, Electronic & Engineering Materials, March 5-6, 2010, Baba Farid College of Engineering & Technology, Bathinda
- 10 “*Heuristic optimization techniques in electric power system I and II*” Short term course on “Advances in power generation operation and control (APGOC)”, July 12-16, 2010, Department of Electrical Engineering, NIT, Hamirpur (HP).
- 11 *Hydrothermal generation scheduling using Particle Swarm optimization: An Overview*, Plenary lecture, International conference on power Systems Operation & Control (ICOPS’10), at GNDEC, Ludhiana, December 20-22, 2010, pp. 455-456
- 12 *Heuristic Optimization techniques*, Expert Lecture, Soft Computing in process and Product Optimization, 6-10 February, 2012, Department of Food Engg. & Tech., SLIET, Longowal
- 13 *Heuristic Optimization techniques*, International conference on Advancements in Computing & Communication (ICACC-2012), February 23-25, 2012, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib
- 14 *Power System Optimization*, Expert Lecture, Short-term course Energy Sources and Computational Techniques in Electrical Engineering, July 15-19, 2013 organized by NITTTR Chandigarh in collaboration with Department of Electrical Engineering, GZS PTU campus Bathinda.
- 15 *Heuristic Optimization techniques*, AICTE Sponsored two week winter school on Future Trends of Broadband Wireless Communications and Networking, December 09-20, 2013, Department of Electrical & Electronics Communication Engineering, Sant Lonowal Institute of Engineering & Technology, Longowal, Punjab.
- 16 *Power System Optimization*, Expert Lecture, Short-term training program on Applications of Evolutionary Computation Techniques on Power Systems, July, 14-18, 2014, Sardar Vallabhbhai National Institute of Technology, Surat, Gujrat (16th July, 2014)

- 17 Optimization Techniques in Power System, Recent Trends in Electric Drives and Power System, 6th-10th July, 2015, BBSBEC, Fatehgarh Sahib (07th, July, 2015)
- 18 Optimization Techniques, Expert Lecture, Emerging Trends in engineering technology (ETET-2015), Faculty Development Programme, 6-10 July, 2015, University Institute of Engineering & Technology, Punjab University Swami Sarvanand Giri Regional Centre Hoshiarpur, Punjab
- 19 Optimization Techniques, Expert Lecture delivered in Short Term Course on 'Engineers Today-2015', at Yadvindra College of Engineering, Punjabi University Guru Kashi university, Talwandi Sabo (Bathinda) from 26 September to 01 October, 2015
- 20 Metaheuristic Optimization Techniques, Expert Lecture delivered in Short term course, Renewable Energy Applications: Practices and Challenges, during December 21-25, 2015 at Sant Longowal Institute of Engineering & Technology, Longowal
- 21 Optimization Techniques, Expert Lecture delivered in Short Term Training Programme on Research Methods on Engineering & Technology, during January 9-13, 2017 at Sant Longowal Institute of Engineering & Technology, Longowal

ANNEXURE -IX

SUBJECT TAUGHT

The following courses/ subject have been taught while serving Thapar Institute of Engineering & Technology, Patiala, GZS College of Engineering & Technology and Sant Longowal Institute of Engineering & Technology, Longowal.

Postgraduate level

1. Micro-controller and Embedded Systems, IE-8102/ M.Tech Instrumentation & Control Eng.
2. Modern control Systems, IE-8103/ M.Tech Instrumentation & Control Eng.
3. Optimal Control Systems, IE-8201/ M.Tech Instrumentation & Control Eng.
4. Optimisation Techniques, CS-508, ME (C.S.)/IE-8212, M.Tech Inst. & Control Eng.
5. Advance Microprocessor Based Systems, IE-8212/ M.Tech Instrumentation & Control Eng.
6. Microprocessor Based Systems, CS/602/EE-602, ME(Power/C.S), TIET, Patiala
7. Computer System Architecture, CS-507, ME (Computer Science), TIET, Patiala
8. Computer Organization & Programming, CS-504, ME (C.S.), TIET, Patiala
9. Computer Programming & Numerical Methods, EE-507, ME (Power), TIET, Patiala
10. Introductory Programming, CS-101, M.C.A., TIET, Patiala
11. Logical Organization of Computers, CS-102, M.C.A, TIET, Patiala
12. Computer System Architecture, CS-109, M.C.A., TIET, Patiala
13. Operating Systems, CS-202, M.C.A., TIET, Patiala

Undergraduate level

1. Electrical Science-I, ES-101, B.E. 1st year
2. Computer Programming, TA-103, B.E. 1st year
3. Microprocessors, EC-305, EE-601, B.E. 3rd year
4. Network Analysis-II, EI-505, B.E. 2nd year
5. Programming in Pascal, EE-506, B.E. 3rd year
6. Programming in C, EE-605, B.E. 3rd year
7. Control Engineering, EI-704, B.E. 4th year
8. Optimization Techniques, EE-704, B.E. 4th year
9. Power System Operation and Control, EE-707, B.E. 4th year
10. Advanced Microprocessor, EI-701, B.E. 4th year
11. Digital Electronics & Microprocessors, EE-210, B.E. 2nd year
12. Digital Electronics & Logic Circuit Design, EE-521, B.E. 2nd year
13. Microprocessor and Interfacing, EE-309, B.E. 3rd year
14. Power System-I, EE-303, EE-503, B.E. 3rd year
15. Computer Aided Power System Analysis, EE-402, B.E. 4th year