AMARINDER SINGH

PERSONAL
INFORMATION

Amarinder Singh
Assistant Professor (Mathematics)
Department of Applied Sciences
Baba Banda Singh Bahadur Engineering College
Fatehgarh Sahib - 140 407
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amarinder.singh@bbsbec.ac.in

Amarinder Singh
House No. 2951/2
Sector - 42 C
Chandigarh - 160 036
Tel: +91 95010 29512
amarinder77@gmail.com

EDUCATION

Doctorate in Mathematics from Thapar University, Patiala (2011). Thesis Supervisors: Prof. Mahesh K. Sharma (TU, Patiala) and Prof. Satya Prakash (ASET, New Delhi). Thesis title: *Multi-Objective Optimization Problems with a Bearing on Real-Life.*

Masters degree in Mathematics from Panjab University, Chandigarh (2001). The program included eight courses viz. Complex Analysis, Algebra, Number Theory, Linear Programming and Discrete Mathematics, Algebraic Number Theory, Functional Analysis, Classical Mechanics, Fluid Dynamics.

Bachelors degree in Mathematics from Panjab University, Chandigarh (2001). The program included the following compulsory courses: Calculus, Algebra, Analysis, Number Theory, Statics and Dynamics and Differential Equations, Real Analysis, Topology and the elective courses: Numerical Methods and Computer Programming, Communication Skills, Economics, Statistics.

Senior Secondary from GMSSS-22, Chandigarh (1995). Attended non-medical courses that included Physics, Chemistry and Mathematics as per the CBSE syllabus.

Matriculation from MGMSSS, Bhilai (1993) The course ware included the usual subjects of Mathematics, Science, Social Studies apart from the language courses in English and Hindi as per the CBSE syllabus.

JOB EXPERIENCES

Total Teaching Experience : 19 Years 08 Months

2007 July→ Employed as Assistant Professor (Mathematics) at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab. I am also associated with Dean (Academics) since April 2009 and performing duties as Academic Co-ordinator of Department of Applied Sciences since September 2019. Work tasks include teaching different courses of Post Graduate (Engineering, Management and Computer Applications) and Under Graduate (Engineering and Computer Applications) programs and additional administrative duties as assigned.

Current Salary: Rs. 81,862 per month.   **Expected Salary:** As per rules.

2006 January → 2007 June Employed as Lecturer (Mathematics) at Swami Vivekanand Institute of Engineering & Technology, Banur, Punjab. Work tasks include teaching different courses of Under Graduate (Engineering) program and additional administrative duties as assigned.

2002 August → 2006 January Employed as Lecturer (Mathematics) at Institute of Engineering & Technology, Bhaddal, Punjab. Work tasks include teaching different courses of Post Graduate (Computer Applications) and Under Graduate (Engineering) programs and additional administrative duties as assigned.

COURSES TAKEN	**Post Graduate Level**	**Under Graduate Level**
	• Computer Mathematical Foundation	• Engineering Mathematics - I, II, III
	• Computer Based Optimization Methods	• Discrete Mathematics
	• Applied Operations Research	• Numerical Methods in Engineering
	• System Simulation & Modelling	• Numerical and Statistical Lab
	• Advanced Mathematics for Engineers	• Operations Research
	• Advanced Numerical Methods	• Simulation, Modelling & Analysis
	• Quantitative Techniques	• Fundamentals of Statistics

ADDITIONAL QUALIFICATION

Diploma in Computer Programming from NIIT, Chandigarh. The program included the courses on Operating Systems as Windows Platform, Unix, etc. Programming Languages such as FoxBASE, C/C++, VC++. Some software packages such as Microsoft Office Suite and some RDBMS softwares such as SQL Server.

PH.D. THESIS SUPERVISED

1. Gurwinder Singh (Regd. No. 1313018), Thesis title: *"Hybrid Heuristic Algorithms for Single and Multi Objective Transportation Problems"*, Inder Kumar Gujral Punjab Technical University, Jalandhar, August 2021.

PH.D. THESIS SUPERVISING

3. Upasana Goyal provisionally enrolled for Ph.D. at Inder Kumar Gujral Punjab Technical University, Jalandhar in September 2021.

2. Jagmohan Kaur, (Enrollment no. 1913002), enrolled for Ph.D. at Inder Kumar Gujral Punjab Technical University, Jalandhar. She defended her Synopsis title *"Development of Soft Computing Based System for Heart Disease Diagnosis"* on 30 April 2021.

1. Bikramjit Singh, (Enrollment no. 17405MPE01), enrolled for Ph.D. at Maharaja Ranjit Singh Punjab Technical University, Bathinda. He defended his Synopsis titled *"Modified Metaheuristic Algorithms for Single and Multi Objective Solid Transportation Problems"* on 21 January 2021.

PATENTS AWARDED

1. G. Singh, **A. Singh** and B. Singh, *A Method and System for Solving Bulk Transportation Problem*, Patent 2021105405, IP Australia, Australian Government, August 2021.

BOOK CHAPTERS PUBLISHED

3. J. Kaur, B.S. Khehra, **A. Singh**, *Significance of Fuzzy Logic in the Medical Science*, In: J.C. Bansal, K. Deep, A.K. Nagar (eds) Algorithms for Intelligent Systems, pp497-509, Springer, 2022. https://doi.org/10.1007/978-981-16-8225-4, ISBN 978-981-16-8224-7 (print) and 978-981-16-8225-4 (online).

2. G. Singh, **A. Singh** and B. Singh, *Incorporation of Additional Modules Within Particle Swarm Optimization for Feasibility Conditions of Multi-index Transportation Problem*, In: A. Abraham, T. Hanne, O. Castillo, N. Gandhi, T. Nogueira Rios, Hong TP. (eds) Hybrid Intelligent Systems, HIS 2020, Advances in Intelligent Systems and Computing, Vol 1375, pp780-792, Springer, 2021. https://doi.org/10.1007/978-3-030-73050-5_76, ISBN 978-3-030-73049-9 (print) and 978-3-030-73050-5 (online).

1. G. Singh and **A. Singh**, *Solving Multi-Objective Fixed-Charge Transportation Problem by using a Modified Particle Swarm Optimization Algorithm*, In: V. Suma, N. Bouhmala, H. Wang (eds) Evolutionary Computing and Mobile Sustainable Networks : Lecture Notes on Data Engineering and Communications Technologies, Vol. 53, pp 373-386, Springer, 2020. https://doi.org/10.1007/978-981-15-5258-8, ISBN 978-981-15-5257-1 (print) and 978-981-15-5258-8 (ebook).

JOURNAL PUBLICATIONS

8. G. Singh and **A. Singh**, *Solving Bulk Transportation Problem using a Modified Particle Swarm Optimization Algorithm*, International Journal of Swarm Intelligence, Inderscience, Vol. 6(2), pp 154-167, 2021.
   https://doi.org/10.1504/IJSI.2021.10037054, ISSN: 2049-4041 (print), 2049-405X (online).

7. G. Singh and **A. Singh**, *Solving Fixed-Charge Transportation Problem using a Modified Particle Swarm Optimization Algorithm*, International Journal of System Assurance Engineering and Management, Springer, Vol. 12(6), pp 1073-1086, 2021.
   https://doi.org/10.1007/s13198-021-01171-2, ISSN: 0975-6809 (print), 0976-4348 (online).

6. G. Singh and **A. Singh**, *Extension of Particle Swarm Optimization Algorithm for Solving Transportation Problem in Fuzzy Environment*, Applied Soft Computing, Elsevier, Vol. 110, 107619, 2021.
   https://doi.org/10.1016/j.asoc.2021.107619, ISSN: 1568-4946.

5. G. Singh and **A. Singh**, *Solving Bulk Transportation Problem using a Position Based Genetic Algorithm*, Advances in Mathematics: Scientific Journal, Vol. 9, No. 6, pp 3887-3893, 2020.
   https://doi.org/10.37418/amsj.9.6.68, ISSN: 1857-8365 (print), 1857-8438 (online).

4. G. Singh and **A. Singh**, *A Modified Particle Swarm Optimization Algorithm to Solve Time Minimization Transportation Problem*, International Journal of Recent Technology and Engineering, Vol. 8, No. 5, pp 3686-3692, 2020.
   https://doi.org/10.35940/ijrte.E6606.018520, ISSN: 2277-3878.

3. G. Singh and **A. Singh**, *A Hybrid Algorithm using Particle Swarm Optimization for Solving Transportation Problem*, Neural Computing and Applications, Springer, Vol. 32, pp 11699-11716, 2019.
   https://doi.org/10.1007/s00521-019-04656-1, ISSN: 0941-0643 (print), 1433-3058 (online).

2. S. Prakash, M.K. Sharma and **A. Singh**, *Pareto Optimal Solutions for Multi-Objective Generalized Assignment Problem*, South African Journal of Industrial Engineering, SAIIE, Vol. 21(2), pp 91-100, 2010.
   https://doi.org/10.7166/21-2-52, ISSN: 2224-7890 (online), 1012-277X (print).

1. S. Prakash, M.K. Sharma and **A. Singh**, *Selection of warehouse sites for clustering ration shops to them with two objectives through a heuristic algorithm incorporating tabu search*, OPSEARCH, Springer India, Vol. 46(4), pp 449-460, 2009.
   https://doi.org/10.1007/s12597-009-0028-8, ISSN: 0975-0320 (online), 0030-3887 (print).

CONFERENCE CONTRIBUTIONS

15. G. Singh, **A. Singh** and M.K. Sharma, *A Penalty Based Heuristic Algorithm for Solving Bi-Objective Fire Station Location Problem*, 2nd International Conference on Advance Computing and Innovative Technologies in Engineering, Galgotias College of Engineering and Technology, Greater Noida, April 28-29, 2022. **(Accepted for presentation)**.

14. J. Kaur, B.S. Khehra and **A. Singh**, *ANN for Heart Disease Diagnosis*, Proceedings of All India Seminar on "Business Intelligence with Intelligent Computing", pp16-19, Vol 1(1), IE(I) Punjab & Chandigarh State Centre and B.A.M. Khalsa College, Garhshankar, March 04-05, 2022.
   ISBN: 978-81-955643-2-3.

13. B. Singh and **A. Singh**, *Hybrid Particle Swarm Optimization Algorithm to Solve Multi-Index Fixed Charge Transportation Problem*, 4th International Conference on Computing and Communications Technologies (ICCCT2021), Sri Sai Ram Engineering College, Chennai, December 16-17, 2021.

12. G. Singh and **A. Singh**, *Retaining Feasibility Conditions to solve Time Minimization Transportation Problem using Particle Swarm Optimization Algorithm*, International Conference on Technological Advancements and Innovation, Amity University, Greater Noida, November 10-12, 2021.

11. G. Singh, **A. Singh** and P. Kaur, *Extension of Particle Swarm Optimization Algorithm for Solving Priority Based Time Minimization Transportation Problem*, 4th National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO), Indian Institute of Technology,

Madras in collaboration with Indian Institute of Science, Bengaluru and Aeronautical Society of India, October 08-09, 2021.

10. J. Kaur, B. Singh and **A. Singh**, *Significance of Fuzzy Logic in the Medical Science*, International Conference on Computer Vision and Robotics (CVR 2021), Babu Banarsi Das University Lucknow and Soft Computing Research Society, August 07-08, 2021.

9. G. Singh, **A. Singh** and B. Singh, *Incorporation of additional modules within Particle Swarm Optimization for feasibility conditions of multi-index Transportation Problems* , 12th World Congress on Nature and Biologically Inspired Computing (NaBIC 2020), Machine Intelligence Research Labs USA, December 14-16, 2020.

8. G. Singh and **A. Singh**, *Solving Bulk Transportation Problem using a Modified Particle Swarm Optimization Algorithm*, International Conference on Paradigms of Computing, Communication and Data Sciences, NIT Kurukshetra, May 01-03,2020.

7. G. Singh and **A. Singh**, *Solving Multi-Objective Fixed-Charge Transportation Problem by using a Modified Particle Swarm Optimization Algorithm*, International Conference on Evolutionary Computing and Mobile Sustainable Networks, SIR MVIT, Bangalore, February 20-21, 2020.

6. G. Singh and **A. Singh**, *Effect of Inertia and Constriction Factors on PSO and Quantum Behaved PSO*, International Conference on Eco-Sensitive Developments in Science & Technology, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, January 20-21, 2017.

5. **A. Singh** and L. Singh, *Education in India : A Perspective on the History, the Present and the Likely Future*, 41st ISTE Annual National Convention, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, December 16-18, 2011.

4. S. Prakash, M.K. Sharma and **A. Singh**, *An Efficient Heuristic for Multi-Objective Bulk Transportation Problem*, 39th International Conference on Computers & Industrial Engineering, The University of Technology of Troyes, Troyes, France, July 6-8, 2009.

3. S. Prakash, M.K. Sharma and **A. Singh**, *A Heuristic for Multi-Objective Chinese Postman Problem*, 39th International Conference on Computers & Industrial Engineering, The University of Technology of Troyes, Troyes, France, July 6-8, 2009.

2. S. Prakash, M.K. Sharma and **A. Singh**, *Efficient Solutions for the Bi-Objective Problem of selecting warehouse sites & clustering ration shops to them through the heuristic method incorporating Tabu Search*, 11th Punjab Science Congress, Thapar University, Patiala, February 7-9, 2008.

1. S. Prakash, M.K. Sharma and **A. Singh**, *A Heuristic for Multi-Objective Generalized Assignment Problem*, 10th Punjab Science Congress, DAVIET, Jalandhar, February 7-9, 2007.

AWARDS

2. **Best Paper Award** for the research article titled *ANN for Heart Disease Diagnosis* presented at All India Seminar on Business Intelligence with Intelligent Computing, The Institution of Engineers (India) Punjab and Chandigarh State Centre and Babbar Akali Memorial Khalsa College, Garhshankar, March 4-5, 2022.

1. **Best Paper Award** for the research article titled *Solving Multi-Objective Fixed-Charge Transportation Problem by using a Modified Particle Swarm Optimization Algorithm* presented at International Conference on Evolutionary Computing and Mobile Sustainable Networks, SIR MVIT, Bangalore, February 20-21, 2020.

EXPERT LECTURES DELIVERED

40. *An Abstract Introduction of Operations Research*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, November 25, 2019.

39. *Combinatorial Optimization and Heuristics*, DST-Sponsored *INSPIRE* Program at Shanti Devi Arya Mahila College, Dinanagar, Punjab, November 19, 2018.

38. *Combinatorial Optimization and Heuristics*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, July 25, 2018.

37. *Basics of LaTeX*, IE(I)-Sponsored One Day Workshop *Mathematical Modelling using PetriNet & Optimization of Systems* at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, April 20, 2018.

36. *Discrete Optimization*, DST-Sponsored *INSPIRE* Program at ISF College of Pharmacy, Moga, Punjab, February 06, 2018.

35. *Optimization in Real Life*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, January 21, 2018.

34. *An Abstract Introduction of Operations Research*, DST-Sponsored *INSPIRE* Program at Akal College of Pharmacy & Technical Education, Mastuana Sahib, Punjab, January 20, 2018.

33. *Optimization and Heuristics*, DST-Sponsored *INSPIRE* Program at Shanti Devi Arya Mahila College, Dinanagar, Punjab, December 15, 2017.

32. *Optimization and Heuristics*, DST-Sponsored *INSPIRE* Program at ISF College of Pharmacy, Moga, Punjab, October 14, 2017.

31. *Optimization in Real Life*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, October 06, 2017.

30. *Slides preparation using Beamer*, MRSPTU-Sponsored Faculty Development Program *Effective Technical Writing Using LATEX* at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, July 06, 2017.

29. *Basics of LATEX*, MRSPTU-Sponsored Faculty Development Program *Effective Technical Writing Using LATEX* at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, July 04, 2017.

28. PSCST-Sponsored *Orientation Workshop* for Punjab State Science Teacher's, Punjab State Council for Science & Technology, Chandigarh, Punjab, May 23, 2017.

27. PSCST-Sponsored *Orientation Workshop* for Punjab State Science Teacher's, Guru Nanak Dev University, Amritsar, Punjab, May 18, 2017.

26. *Optimization and Heuristics*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, April 30, 2017.

25. *Particle Swarm Optimization*, SERB(DST)-Sponsored *Workshop on Optimization Techniques & Its Applications* at Chandigarh University, Gharuan, Punjab, December 23, 2016.

24. *Graph Theory and Optimization Techniques*, DST-Sponsored *INSPIRE* Program at Sri Sai College of Pharmacy, Badhani, Pathankot, Punjab, December 19, 2016.

23. *Applications of Operations Research*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, December 02, 2016.

22. *An Abstract Introduction of Operations Research*, DST-Sponsored *INSPIRE* Program at ISF College of Pharmacy, Moga, Punjab, November 24, 2016.

21. *An Abstract Introduction of Operations Research*, DST-Sponsored *INSPIRE* Program at DAV College, Amritsar, Punjab, November 22, 2016.

20. *Applications of Optimization Techniques*, DST-Sponsored *INSPIRE* Program at Shanti Devi Arya Mahila College, Dinanagar, Punjab, October 21, 2016.

19. *Optimization Problems in Real Life*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, October 09, 2016.

18. *Optimization Problems in Real Life*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, October 02, 2016.

17. *Optimization Problems in Real Life*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, May 10, 2016.

16. *LATEX: Report Writing*, SERB(DST)-Sponsored *Workshop on Research Methodology* at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, December 17, 2015.

15. *Report Writing*, SERB(DST)-Sponsored *Workshop on Research Methodology* at Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, December 15, 2015.

14. *Optimization!!*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, August 26, 2015.

13. *Optimization!!*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, June 17, 2015.

12. *Optimization Problems in Real Life*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, January 17, 2015.

11. *Operations Research and its Applications*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, November 16, 2014.

10. *To Q or not to Q*, Shaheed Udham Singh College of Engineering & Technology, Tangori, Punjab, October 17, 2014.

9. *Operations Research and its Applications*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, September 04, 2014.

8. *Functions of Complex Variables*, Rayat Bahra Institute of Engineering & Bio-Technology, Kharar, Punjab, July 14, 2014.

7. *An Abstract Introduction of Operations Research*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, June 09, 2014.

6. *Graph Theory and Optimization Techniques : An Introduction*, DST-Sponsored *INSPIRE* Program at Chandigarh Group of Colleges, Landran, Punjab, January 27, 2014.

5. *An Abstract Guide into Mathematics*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, January 21, 2014.

4. *Optimization!!*, Rayat Bahra Institute of Engineering & Bio-Technology, Kharar, Punjab, October 17, 2013.

3. *An Abstract Introduction of Operations Research*, DST-Sponsored *INSPIRE* Program at Chandigarh University, Gharuan, Punjab, October 04, 2013.

2. *An Abstract Introduction of Operations Research*, DST-Sponsored *INSPIRE* Program at Chandigarh Group of Colleges, Landran, Punjab, September 28, 2013.

1. *A Journey into Mathematics*, DST-Sponsored *INSPIRE* Program at Chandigarh Group of Colleges, Landran, Punjab, April 28, 2013.

CO-CURRICULAR ACTIVITIES

5. *Member, Board of Studies (Mathematics)*, Maharaja Ranjit Singh Punjab Technical University, Bathinda, during October 01, 2017 to September 30, 2019.

4. *Resource Person*, Punjab State Council for Science & Technology, Chandigarh, Punjab.

3. *Evaluator*, 25th National Children's Science Congress, SAL College of Engineering & Technology, Ahmedabad, Gujarat, December 27-31, 2017.

2. *Evaluator*, 24th National Children's Science Congress, Vidya Pratishthan's Institute of Information Technology, Baramati, Maharashtra, December 27-31, 2016.

1. *Evaluator*, 23rd National Children's Science Congress, Chandigarh University, Gharuan, Punjab, December 27-31, 2015.

ADMINISTRATIVE EXPERIENCE

10. **Associated with Dean(Academics)**, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, April 2009 onwards. The duties include dealing with all the issues related to academics, examinations and scholarships offered by Government and Non-Government Organizations.

9. **Academic Coordinator**, Department of Applied Sciences, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, September 2019 onwards.

8. **ARIIA Coordinator**, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, January 2021 onwards.

7. *Member, NAAC and NBA Committees* for Department of Applied Sciences, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib.

6. *Member, Minority Cell*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, July 2018 onwards.

5. *Member, SC/ST Grievances Redressal Committee*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, 2017 onwards.

4. *Member, Admission Cell*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, 2017 and 2018.

3. *Deputy Admissions Coordinator*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib.

2. *Faculty Incharge of Students' House*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, January 2008-January 2013.

1. *Deputy Superintendent (Examinations)*

   (c) Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, Punjab, December 2008 & December 2009.

   (b) Swami Vivekanand Institute of Engineering & Technology, Banur, Punjab, June 2006 - June 2007.

   (a) Institute of Engineering & Technology, Bhaddal, Punjab, December 2003 - December 2005.

PROGRAMS ORGANIZED

4. Co-Coordinator, *Punjab State Level Children's Science Congress*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, November 28-30, 2017.

3. Organizing Secretary, SERB(DST)-Sponsored *International Conference on Eco-Sensitive Developments in Science & Technology*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, January 20-21, 2017.

2. Workshop Coordinator, SERB(DST)-Sponsored Workshop on Research Methodology, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, December 14-18, 2015.

1. Convener, Academic Committee, DST-Sponsored *INSPIRE* Program, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, March 22-26, 2014; March 23-27, 2013; February 09-13, 2013 and March 31-April 4, 2012.

CONFERENCES ATTENDED

4. *National Conference on Mathematical Modelling and Machine Learning Techniques*, Department of Mathematics, Panjab University, Chandigarh, March 20-21, 2015.

3. *First National Conference on Applied Mathematics*, Guru Nanak Dev Engineering College, Ludhiana, November 30 - December 01, 2007.

2. *National Conference on Frontiers in Applied and Computational Mathematics*, School of Mathematics & Computer Applications, Thapar Institute of Engineering & Technology, Patiala, March 04-05, 2005.

1. *National Conference on Industrial Mathematics & Engineering Computation*, School of Engineering Mathematics, Institute of Engineering & Technology, Bhaddal, March 28-29, 2003.

SHORT TERM COURSES ATTENDED

7. *Student Evaluation*, National Institute of Technical Teachers' Training & Research, Chandigarh, January 07-11, 2019.

6. *Mathematical Programming Problems*, National Institute of Technical Teachers' Training & Research, Chandigarh, November 06-10, 2017.

5. *Evaluation & Setting Question Papers*, National Institute of Technical Teachers' Training & Research, Chandigarh, April 20-24, 2015.

4. *ANN & Optimization Techniques and their Applications*, National Institute of Technical Teachers' Training & Research, Chandigarh, November 17-21, 2014.

3. *Recent Advances in Genetic Algorithms and their Applications in Engineering Design*, Indian Institute of Technology, Roorkee, June 25-29, 2012.

2. *Mathematical Computations using Software Tools*, Indian Institute of Technology, Roorkee, July 1-5, 2008.

1. *Managing Self*, National Institute of Technical Teachers' Training & Research, Chandigarh, July 23-27, 2007.

WORKSHOP ATTENDED	6. *One Day Workshop on Linux*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, organized by the Teaching Learning Centre, ICT at IIT Bombay, sponsored by Pandit Madan Mohan Malaviya National Mission of Teachers and Teaching, MHRD, Govt of India, August 23, 2019.

6. *One Day Workshop on Linux*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, organized by the Teaching Learning Centre, ICT at IIT Bombay, sponsored by Pandit Madan Mohan Malaviya National Mission of Teachers and Teaching, MHRD, Govt of India, August 23, 2019.

5. *Mathematical Modelling using PetriNet & Optimization of Systems*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, in collaboration with The Institution of Engineers (India), Punjab & Chandigarh State Centre, April 20, 2018.

4. *Sustainable Design and Manufacturing Practices in Automotive Engineering*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, in collaboration with The Institution of Engineers (India), Punjab & Chandigarh State Centre, April 5-6, 2018.

3. *Python Programming*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, in collaboration with The Institution of Engineers (India), Punjab & Chandigarh State Centre, March 22-23, 2018.

2. *Nature Inspired Optimization Techniques*, South Asian University, New Delhi, March 19, 2016.

1. *Computational Aspects of Mathematics*, Sant Longowal Institute of Engineering & Technology, Longowal, December 22-26, 2008.

FACULTY DEVELOPMENT PROGRAM ATTENDED

11. *Innovation Ambassador Training (Foundation Level)*, Ministry of Education's Innovation Cell and AICTE, June 30 - July 30, 2021.

10. *Nature Inspired Optimization Techniques*, National Institute of Technology, Delhi in collaboration with AICTE Atal Academy, July 19-23, 2021.

9. *Multi-Objective Optimization and Product Innovation through TRIZ*, Sri Shanmugha College of Engineering and Technology, Sankari, Tamil Nadu in collaboration with AICTE Atal Academy, July 12-16, 2021.

8. *Advanced Excel with Data Visualization*, E&ICT Academy, IIT Kanpur, April 12-17, 2021.

7. *Artificial Intelligence and Soft Computing*, Mahindra Engineering College, Namakkal, Tamil Nadu in collaboration with AICTE Atal Academy, February 22-26, 2021.

6. *Machine Learning*, E&ICT Academy, IIT Kanpur, January 11-23, 2021.

5. *Linux*, E&ICT Academy, IIT Kanpur, January 04-09, 2021.

4. *Information and Communication Technology in Education*, NIT Jalandhar, in collaboration with AICTE Atal Academy, January 04-08, 2021.

3. *Python*, E&ICT Academy, IIT Kanpur, December 14-19, 2020.

2. *Human Values*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, in collaboration with Punjab Technical University, Jalandhar, July 16-17, 2010.

1. *Lasers & its Applications*, Baba Banda Singh Bahadur Engineering College, Fatehgarh Sahib, in collaboration with Punjab Technical University, Jalandhar, July 12-14, 2010.

LANGUAGE SKILLS I can correspond comfortably in English, Punjabi and Hindi.

HOBBIES   Photography.

(AMARINDER SINGH)

Date:

Place: