

Curriculum Vitae

Dr. Jaswinder Pal

Permanent Address

V.P.O-Dabwali Dhab

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Google Scholar: <https://scholar.google.com/citations?user=83tyNeoAAAAJ&hl=en>

Research Gate: <https://www.researchgate.net/profile/Jaswinder-Pal-2>



❖ Objective

To build a successful professional career through continuous up gradation of knowledge and to apply the acquired expertise in research and development for the betterment of society and human welfare.

❖ Area of Interest

Multiferroic Materials, Multifunctional Materials, Microwave Absorbers

❖ Academic Qualifications

Qualifying Exam	Passing Year	Board/University	Percentage/CGPA
Ph.D Physics	2019	GNDU, Amritsar	Degree Awarded
M.Sc Applied Physics	2007	Punjabi University, Patiala (Campus)	77.70%
B.sc Non-Medical	2005	Govt. College, Muktsar (Punjab University Chandigarh)	76.35%
H.S.C. Examination	2002	P.S.E.B, Mohali	58.22%
S.S.C. Examination	2000	P.S.E.B, Mohali	70.15%

❖ **Ph.D Thesis Title**

Ph.D "Synthesis and Characterization of BiFeO₃ modified by Lead and non-Lead based Titanates"

❖ **Teaching Experience**

Sr No.	Name of University/College/Institute/Organization	Designation	Pay Scale/ Consolidated salary	From	To
1	Bhai Maha Singh College of Engineering, Muktsar (Affiliated to IKGPTU, Jalandhar)	Assistant Professor	15600-39100	02-08-2007	31-08-2012
2	Bhai Maha Singh College of Engineering, Muktsar (Affiliated to IKGPTU, Jalandhar)	Assistant Professor	15600-39100	01-01-2013	24-01-2019
3	Baba Farid College, Bathinda (Affiliated to Punjabi University Patiala)	Assistant Professor	15600-39100	25-01-2019	30-04-2025
4	Baba Farid College of Engineering & Technology, Bathinda (Affiliated to MRSPTU, Bathinda)	Associate Professor	37400-67000	01-05-2025	Till Date

❖ **Additional Duties Performed along with Teaching**

- a) Coordinator Curricular and Extra-curricular activities from January, 2008 to January, 2019 in Bhai Maha Singh College of Engineering, Sri Muktsar Sahib.
- b) Worked as Admission Cell Coordinator from January, 2010 to January, 2019 in Bhai Maha Singh College of Engineering, Sri Muktsar Sahib.
- c) Additional duty of Deputy Registrar in Bhai Maha Singh College of Engineering, Sri Muktsar Sahib.
- d) Additional duty of Coordinator Research & Innovation cell, Coordinator IQAC cell and Associate Dean, School of Sciences in Baba Farid College Bathinda.
- e) Currently working as a Head, School of Sciences, Baba Farid Group of Institutions, Bathinda

❖ Research Publications

1. **Jaswinder Pal**, Sunil Kumar, Lakhwant Singh, Mandeep Singh, Anupinder Singh. Detailed investigation on Structural, Dielectric, Magnetic and Magnetodielectric properties of BiFeO₃-BaSrTiO₃ solid solutions. *Journal of Magnetism and Magnetic Materials*. Volume **441**, 1 November 2017, Pages 339-347.
2. **Jaswinder Pal**, Sunil Kumar, Lakhwant Singh, Mandeep Singh, Anupinder Singh. Study of the structural and magnetic phase-transitions and multiferroic properties in BiFeO₃-Ba_{0.95}Ca_{0.05}TiO₃ solid solutions. *Materials Research Bulletin*. Volume 102, June 2018, Pages 36-44.
3. Sunil Kumar, **Jaswinder Pal**, Shubhpreet Kaur, Randeep Kaur, Mandeep Singh, Anupinder Singh. The Effect of Aliovalent Pb²⁺ Dopant on the Magnetic and Magnetodielectric Properties of LaFeO₃ Solid Solutions. *Journal of Magnetism and Magnetic Materials* 467 (2018) 89–95.
4. Sunil Kumar, **Jaswinder Pal**, Shubhpreet Kaur, Vandana Sharma, Sajjan Dahiya, P.D. Babu, Mandeep Singh, Avijeet Ray, Tulika Maitra, Anupinder Singh. Correlation between Multiferroic Properties and Processing Parameters in NdFeO₃-PbTiO₃ Solid Solutions. *Journal of Alloys and Compounds* **764** (2018) 824-833.
5. **Jaswinder Pal**, Sunil Kumar, Randeep Kaur, Paras Aggarwal, Mandeep Singh and Anupinder Singh. Structural and Magnetic Characterization of Ti doped Cobalt Ferrite (CoFe₂O₄). *AIP proceeding*. Volume **1953**, 2018, Pages120028-1-120028-5.
6. Sunil Kumar, **Jaswinder Pal**, Shubhpreet Kaur, Paras Aggarwal, Mandeep Singh and Anupinder Singh. Multiferroic properties in NdFeO₃-PbTiO₃ solid solutions. *AIP proceeding*. Volume **1953**, 2018, Pages120029-1-120029-4.
7. Sunil Kumar, **Jaswinder Pal**, Shubhpreet Kaur, Paras Agrawal, Mandeep Singh and Anupinder Singh. Effect of Pb²⁺ Substitution at A-site on Structural and Magnetic Properties of LaMnO₃. *AIP proceeding*. Volume **1953**, 2018, Pages120030-1-120030-4.

8. Sunil Kumar, **Jaswinder Pal**, Shubhpreet Kaur, Parambir Singh Malhi, Mandeep Singh, P.D. Babu and Anupinder Singh. Structural, Magnetic, Non-Debye relaxation and Hopping Mechanism in $\text{Pb}_x\text{Nd}_{1-x}\text{FeO}_3$ where ($x = 0.1, 0.2$ and 0.3) solid solutions. *Journal of Asian Ceramic Society* Volume 7, 2019 - Issue 2.
9. **Jaswinder Pal**, Sunil Kumar, Shubhpreet Kaur, Parambir Singh Malhi, Yogesh Kumar, Mandeep Singh, Anupinder Singh. Study of the magnetic, electrical and magneto-dielectric properties and dielectric relaxation in $0.8\text{BiFeO}_3\text{-}0.2\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3$ solid solution. *Solid State Sciences* 103 (2020) 106193.
10. Shubhpreet Kaur, Mehak Arora, Sarghpreet kaur, Sunil Kumar, **Jaswinder Pal**, Parambir Singh Malhi, Paras Aggarwal, Mandeep Singh, Anupinder Singh. Association of processing parameters and Electrocaloric properties of Bi^{3+} modified PZT solid solution. *AIP proceeding*. Volume **2220**, 2020, Pages 030007-1–030007-4.
11. Sunil Kumar, Shubhpreet Kaur, Mehak Arora, **Jaswinder Pal**, Harsimran Singh, Amandeep Kaur, Parambir Singh Malhi, Paras Aggarwal, Mandeep Singh, Anupinder Singh. Impedance Spectroscopy and Hopping Mechanism of Ti^{4+} Substituted at B-site of NdFeO_3 Solid Solutions. *AIP proceeding*. Volume **2220**, 2020, Pages 030005-1–030005-6.
12. Sunil Kumar, Shubhpreet Kaur, Mehak Arora, **Jaswinder Pal**, Parambir Singh Malhi, Paras Aggarwal, Mandeep Singh, Anupinder Singh. Effect of Substitution of Higher Concentration of Pb^{2+} Ion on Structural and Magnetic Properties of LaMnO_3 at A-site. *AIP proceeding*. Volume **2220**, 2020, Pages 030008-1–030008-3.
13. Sunil Kumar, Shubhpreet Kaur, Mehak Arora, Simar Sapna, Sumedha Sharma, **Jaswinder Pal**, Parambir Singh Malhi, Paras Aggarwal, Mandeep Singh, Anupinder Singh. Structural, Microstructural and Magnetic Properties of B-site Ti^{4+} substituted NdFeO_3 solid solutions. *AIP proceeding*. Volume **2220**, 2020, Pages 030006-1–030006-5.
14. Yogesh Kumar, **Jaswinder Pal**, Parambir Singh Malhi and Rakesh Kumar. Enhanced electrical conductivity in Zr-Doped $(\text{La}_{0.7}\text{Ba}_{0.3})(\text{Mn}_{0.5}\text{Fe}_{0.5})\text{O}_3$ solid solutions. *Journal of Advanced Dielectrics*. Vol. 10, No. 6 (2020) 2050032 (8 pages).
15. Sunil Kumar, Kanika Aggarwal, **Jaswinder Pal**, Shubhpreet Kaur, Mehak Arora, Parambir Singh Malhi, P. D. Babu, Mandeep Singh and Anupinder Singh. Compositional-driven

- multiferroic and magnetoelectric properties of NdFeO₃- PbTiO₃ solid solutions. *Journal of Asian Ceramic Societies*, <https://doi.org/10.1080/21870764.2020.1860435> (2021).
16. Anil Kumar, Preeti Sharm, **Jaswinder Pal**, Anupinder Singh, Rajender Singh, Kundu & Rajesh Punia. Investigation on Multiferroic Properties and Conduction Mechanism in Cobalt Doped Bi_{0.9}Nd_{0.1}FeO₃ Solid Solutions. *Transactions of the Indian Ceramic Society* Volume 80, no. 2, pp. 142-149 (2021).
 17. **Jaswinder Pal**, Sunil Kumar, Kanika Aggarwal, Sanjeev Kumar, Chi-Liang Chen, Wei-Hsiang Huang, Wei-Nien Su, Anupinder Singh. A Comparative Study of Structural and Multiferroic Properties of Ca, Sr and Ba doped 0.2BiFeO₃-0.8PbTiO₃ Solid Solutions. *Materials Characterization*. Volume 189, July 2022, 111983.
 18. Sajan Masih, Niyti Sharma, Sunil Kumar, Arshdeep Kaur, Shiffali Middha, P.D. Babu, Rubin a Ghosh, P.N. Vishwakarma, **Jaswinder Pal**, Indu Sharma, Gurpreet Singh, Mandeep Singh, Arvind Kumar, Anupinder Singh, Flexible ceramic composites for Magnetic field sensor Applications. *Ceramics International*. <https://doi.org/10.1016/j.ceramint.2024.12.025>.
 19. Sunil Kumar, Shiffali Middha, Sajan Masih, Arshdeep Kaur, **Jaswinder Pal**, Norah Alhokbany, Jahangeer Ahmed, Gurpreet Singh, Lopez-García, Satvir Singh, Nitin Tandon, Indu Sharma, Arvind Kumar Sharma, Anupinder Singh, Magneto-dielectric composites synthesized using industrial waste, *Journal of Magnetism and Magnetic Materials* 629 (2025) 173306.
 20. **Jaswinder Pal**, Sunil Kumar, Jahangeer Ahmed, Saad M Alshehri, Javier Lopez Gracia, Satvir Singh, Nitin Tandon, Anupinder Singh, Enhanced Magnetic, Dielectric and Microwave Absorption Properties of (Bi_{0.7}Ba_{0.285}Ca_{0.015})(Fe_{0.7}Ti_{0.3})O₃/Ba_{0.8}Sm_{0.2}Fe₁₂O₁₉ Multiferroic Composites. *Materials Chemistry and Physics*. Volume 350, February 2026, 131954.
 21. Simranjit Kaur, Parminder Kumar Luthra, **Jaswinder Pal**. Synthesis and Characterization of IPNS Clay Nanocomposites from the Biodegradable Sources. *International Journal of Research in Information Technology (IJRIT)*. Volume 2, Issue 3, March 2014, Pg: 242-255
 22. **Jaswinder Pal**, Amandeep Kaur, Jyoti Bala , Rupinder Kaur, Anupinder Singh. Structural Morphological, Elemental Analysis and Magnetic properties of Pb_{0.5}Nd_{0.5}FeO₃. *The Research Journal*. Volume 2, Issue 6 (2016) ISSN: 2454-7301

❖ **Patents**

Sr. No.	Title	Status	Application no.
1	Calcium Doped BiFeO ₃ - PbTiO ₃ Solid Solution With Enhanced Multiferroic Properties	Granted	202311004607
2	Strontium Doped BiFeO ₃ - PbTiO ₃ Solid Solution With Enhanced Multiferroic Properties	First Publication	202311006703
3	A system of Automatic street light using LDR.	First Publication	202211028505
4	Interpenetrating Polymer Network Composite with Multiferroic Ceramic for Magnetic Field Sensor	First Publication	202511117760
5	Lanthanum-doped Bismuth Ferrite Ceramics with tunable band gap for enhanced Photovoltaic and Multiferrous Applications	First Publication	202511117237
6	Triple doped Hematite Nanoparticles for Photo-catalysis and Seed Germination	First Publication	202511111318

❖ **Book Chapter/ Edited Books:**

i) **Editor of Book by National Publisher, with ISBN/ISSN number**

S.No.	Title with page no.	Type of Book & Authorship	Publisher & ISSN/ISBN No.
1	Quantum Computing and Communication.	Conference Proceeding Book	978-93-5768-123-0
2	National Conference on Multidisciplinary Research and Innovations	Conference Proceeding Book	978-93-340-2778-5
3	Proceeding book "SPARK" on Natural, Basic and Allied Sciences	Conference Proceeding Book	978-81-986391-9-6
4	Proceeding book "SPARK" on Engineering, Technology and Computer Application	Conference Proceeding Book	978-81-986391-7-2
5	Proceeding book "SPARK" on Humanities, Social Sciences, and Management	Conference Proceeding Book	978-81-986391-0-3

- ii) **Chapters in Books published by National and International level publishers, with ISBN/ISSN number as approved by the University and posted on its Website.**

S.No.	Title with page no.	Type of Book & Authorship	Publisher & ISSN/ISBN No.
1	Synthesis and characterizations of La-doped BiFeO ₃ solid solutions for solar cell application.	International Research Book (Advances in Sustainable Materials.) https://doi.org/10.1016/B978-0-443-13849-2.00008-9	Elsevier ISBN: 9780443138492
2	Characterization of Non-Debye Behavior and Hopping Mechanism in PbTiO ₃ -NdFeO ₃ Multiferroic Using Complex Impedance Spectroscopy.	Advanced Materials: Production, Characterization and Multidisciplinary Applications https://doi.org/10.1201/9781003451198	Taylor & Francis Group ISBN: 9781003451198
3	Magnetic Ordering and dielectric response in oil based polymer using Industrial waste	Nanomaterials Synthesis and Applications	Cambridge Scholars Publishing 9781036417185

❖ **Research Project Ongoing/Completed**

Sr. No	Title of the Project	Sanctioned No.	Status/ Role	Funding Agency	Sanctioned/ Applied Amount
1	Synthesis and Characterizations of BiFeO ₃ based Multiferroic Composites with enhanced Magneto-electric and Microwave–Absorbing properties	BFGI/R&I/ 2122/003	Completed/ PI	Baba Farid Group of Institutions	2,00,000/-

❖ **Funded Workshops/ Conferences organized**

Sr. No	Title of workshop/Conference	Date	Role	Funding Agencies
1	A national workshop on “Recent Advances in Natural Radionuclides and Multifunctional Materials (RANRAMM-2021)”	18 th -20 th August, 2021	Convener	BRNS, Mumbai and MTF India
2	International Conference on “Quantum Computing and Communications (QCC-2023)”	9 th -11 th February, 2023	Coordinator	SERB, DBT, DRDO, MTF

❖ **Award and Reorganization:**

S.No	Title of Award	Date(s) of the event	Organized by
1	International EARG Award 2024 in the category “Excellence in Research and Innovation”	19 March, 2024	Organized by jointly MTTF India and Poornima Engineering College Jaipur, Rajasthan

❖ **Papers/Posters presented at National/ International Conferences:**

1. Effect of Different Scanning Electron Microscope Parameters and Sample Preparation Techniques on the Micrographs of Multiferroic Ceramic. *International Conference on Electron Microscopy & XXXV Annual Meeting of Electron Microscope Society of India (EMSI), Delhi University, Delhi.* **Jaswinder Pal**, Lakhwant Singh and Anupinder Singh.
2. Structural and Magnetic Properties of $0.5\text{BiFeO}_3\text{-}0.5\text{BaSrTiO}_3$ Multiferroic Solid Solution. *National Conference on Advances in Engineering Materials (NAEM-2015), DIT University, Dehradun.* **Jaswinder Pal**, Mandeep Singh, Lakhwant Singh and Anupinder Singh.
3. Effect of Ca substitution on structural and magnetic properties of $\text{BiFeO}_3\text{-BaTiO}_3$ multiferroic solid solution. *3rd National Conference on Photonics and Materials Science (NCPMS-2015), Guru Jambheshwar University, Hisar.* **Jaswinder Pal**, Mandeep Singh, Lakhwant Singh and Anupinder Singh.
4. Effect of Sr substitution on structural and magnetic properties of $\text{BiFeO}_3\text{-BaTiO}_3$ multiferroic solid solution. *Interdisciplinary Research for Sustainable Development (IRSD) 2016, NITTR, Chandigarh.* **Jaswinder Pal**, Mandeep Singh, Sunil Kumar and Anupinder Singh.
5. Structural, Magnetic, Ferroelectric and Magnetodielectric properties of $(1-x)\text{BiFeO}_3\text{-}x\text{Ba}_{0.8}\text{Sr}_{0.2}\text{TiO}_3$ ($0.1 \leq x \leq 0.3$) solid solution. *NSSEMS-2019, D.A.V.Abohar.* **Jaswinder Pal.**
6. Structural and Magnetic Characterization of Ti doped Cobalt Ferrite Solid Solution. *National Seminar on Emerging Research Trends in Experimental Physics (ERTEP-2019), Guru Nanak College for Girls, Sri Muktsar Sahib.* **Jaswinder Pal.**
7. Ethics in Professional Education. *National Seminar & Conference on Science, Spirituality & Ethics for Human Development (March-2009). BMSCE, Muktsar.* **Jaswinder Pal.**

8. Implications of Ethical & Social Issues in Nanotechnology. National Seminar & Conference on Science, Spirituality & Ethics for Human Development (March-2009). BMSCE, Muktsar. **Jaswinder Pal.**
9. Theory of Everything. National Seminar & Conference on Science, Spirituality & Ethics for Human Development. BMSCE, Muktsar (March-2009). **Jaswinder Pal.**
10. Theory of Evolution. National Seminar & Conference on Science, Spirituality & Ethics for Human Development. BMSCE, Muktsar (March-2009). **Jaswinder Pal.**
11. A Comparative Study of Structural and Multiferroic Properties of Ca, Sr and Ba doped $0.2\text{BiFeO}_3\text{-}0.8\text{PbTiO}_3$ Solid Solutions. International Conference on Advanced Materials and Mechanical Characterizations, SRM Institute of Science and Technology. SRM Institute of Science and Technology. Dec 2-3, 2021. **Jaswinder Pal.**
12. Synthesis and Characterizations of Gd-Doped BiFeO_3 Solid-Solutions for Solar Cell applications. International conference on “Emerging Trends in Biotechnology and Sustainable Chemistry”. Baba Farid College, Bathinda. April 27-29, 2022. **Jaswinder Pal.**
13. Multiferroic Materials as Quantum Electromagnets: A future prospective of Quantum Computers. International Conference on Quantum Computing and Communication (QCC-2023). Baba Farid College, Bathinda, February 9-11, 2023. **Jaswinder Pal.**
14. Exploring Quantum Phenomenon in Multiferroics. International Conference on Quantum Computing and Communication (QCC-2023). Baba Farid College, Bathinda, February 9-11, 2023. **Jaswinder Pal.**
15. To study the synthesis, structural and magnetic properties of Ti-doped cobalt ferrite (CoFeO_4). National Conference on Multidisciplinary Research and Innovations (NCMRI-2024), Baba Farid College, Bathinda, 18-19 April, 2024. **Jaswinder Pal**, Lakhwinder Singh, Sunil Kumar, Anupinder Singh.
16. Revealing Nanoparticles: A Review on Synthesis Processes and Diverse Applications. National Conference on Multidisciplinary Research and Innovations (NCMRI-2024), Baba Farid College, Bathinda, 18-19 April, 2024. Shalvi, **Jaswinder Pal.**
17. Synthesis of La- doped $\text{BaFe}_{12}\text{O}_{19}$ multiferroic solid solution via Solid-State Reaction

Method. National Conference on Multidisciplinary Research and Innovations (NCMRI-2024), Baba Farid College, Bathinda, 18-19 April, 2024. Avdeep Kaur, Vanshika, Vivek Singh, Amolpreet Singh, Kamaljeet Singh, **Jaswinder Pal**.

18. Synthesis of BiFeO_3 - BaCaTiO_3 Multiferroic Solid Solution via Solid-State Reaction Method. National Conference on Multidisciplinary Research and Innovations (NCMRI-2024), Baba Farid College, Bathinda, 18-19 April, 2024. Shalvi, Mehakpreet Kaur, Navneet Singh, Lakhwinder Singh, **Jaswinder Pal**

❖ **List of International/ National webinars/seminars/conferences attended as a participant**

a) International

1. International conference on Interdisciplinary Research for Sustainable Development (IRSD) 2017 at NITTTR Chandigarh (UT) India on 6-7 November 2017.
2. Two days international webinar organized by Department of Computer Science, Baba Farid College, Bathinda. Held through the Microsoft Teams on 7th July – 8th July, 2020.
3. Online International webinar on MATLAB Applications in Science and Engineering organized by Baba Farid College Bathinda on 29 May, 2020.

b) National

1. Online National webinar on Mixed Pervoskite Solid Solutions for Multiferroic and Multi Caloric properties & Behavior of a Negative Dielectric Pervoskite system organized by Thakur PG College of education, Dhaliara (H.P) on 28 June, 2020.
2. Online National webinar on Hybrid Nanomaterials for super capacitor applications organized by DAV College Abohar on 27 July, 2020.
3. Participated in A Two-Day National Webinar on “Recent Advances in Sciences and its Applications” organized by Department of Basic Sciences, Guru Nanak College, Sri Muktsar Sahib held on March 25-26, 2022.
4. Participated in National Seminar on “Advanced Functional Materials” organized by Department of Applied Sciences in association with Materials Research Society of India organized by Maharaja Agrasen Institute of Technology, Delhi from February 24-25, 2022.

❖ **Workshop/Faculty Development Programme / Short Term Course attended:**

1. A short term programme on “Nanotechnology –opportunity and Challenges”. NITTTR, Chandigarh. 21.04.2008-25.04.2008.
2. A short term programme on “Intellectual Property Rights & Patent System in India” NITTTR, Chandigarh. 20.03.2009-22.03.2009.
3. Faculty Development Programme on “Development of Faculty in Teaching Methodology & Education Management. PTU, Jalandhar. July 26-30, 2010.
4. Mission 10X workshop organized by BMSCE, Muktsar with the collaboration of Wipro-ISTE. June 13-17, 2011.
5. Faculty Development Programme on “Advances in Polymeric Materials and Composites. PTU, Jalandhar. 28.05.2012-01.06.2012.
6. Faculty Development Programme on “Role of computer in Robotics and Mechatronics. IST-PTU. June 9-13, 2014.
7. National Workshop on Electron Microscopy & Allied Techniques NWEMAT-2015. University of Delhi, Delhi. December 21-23, 2015.
8. A short term course on “Cyber Crime & Forensic Tools through ICT”. NITTTR, Chandigarh. 06.02.2017-10.02.2017.
9. A short term course on “Skill India through ICT”. NITTTR, Chandigarh. 27.02.2017-03.03.2017.
10. Participated in one day workshop on Advanced Functional Materials sponsored by TEQIP(III) and organized by Department of Applied Sciences, PEC University Chandigarh on 17th March, 2018.
11. Participated in 7 day online National Faculty Development Programme on “NAAC Revised Accreditation Framework” organized by IQAC, Aggarwal College Ballabgarh from 27th August to 2nd September, 2020.
12. Participated in five days Faculty Development Program on “Roles and Responsibilities of Faculty in NAAC Accreditation in Higher Education. January 11-15, 2021. Organized by

Baba Farid College Bathinda.

13. Participated in A national workshop on “Recent Advances in Natural Radionuclides and Multifunctional Materials (RANRAMM-2021)” from 18th -20th August, 2021, Organized by Baba Farid College Bathinda.
14. Participated in Capacity Building Programme on “NAAC Accreditation Awareness Programme for Colleges” organized by IQAC Punjabi University Patiala. March 2th, 2022.
15. Participated in Workshop on Learning Outcome-Based Curriculum Framework organized by Akal University, Talwandi Sabo, Bathinda in collaboration with Eternal University, Baru Sahib, Himachal Pradesh on May 14, 2022.
16. Participated in IP Awareness/Training program under “National Intellectual Property Awareness Mission” organized by Baba Farid College Bathinda on May 27, 2022.
17. Participated In National Level Faculty Development Programme on the topic “Data Analysis With Statistical Package For The Social Sciences” held from April 27,2022 to May 06,2022.
18. 7-Day Faculty Development Program on empowering faculty for implementation of National Education Policy 2020 organized by Baba Farid College Bathinda on October 3-12, 2022.
19. One week national workshop on Artificial Intelligence and Machine Learning organized by Baba Farid College Bathinda on November 15-21, 2022.
20. Two week national workshop on the importance of intellectual property rights in advanced research organized by Baba Farid College Bathinda on November 3-16, 2022.
21. Five day faculty development program on “Unlocking Creativity and Efficiency: Harnessing Artificial Intelligence in Research paper and content creation ” organized by Baba Farid College Bathinda on September 20-26, 2023.
22. Five day faculty development program on “Essential AI tools and software for academic excellence” organized by Baba Farid College Bathinda on December 4-8, 2023.
23. Five day faculty development program on Transforming Academic Research with AI: New Horizons in scholarly publications organized by Baba Farid College Bathinda on December 18-22, 2023.

24. NEP 2020 Orientation & Sensitization Programme under "Malaviya Mission Teacher Training Programme organized by University Grants Commission Organized by Punjabi University, Patiala on September 19-30, 2024
25. Biostatic workshop: From basic to advance Techniques organized by MTTF on August 21-30, 2024
26. Empowering Management Education and Research through Generative AI and Statistical Insights organized by MTTF on 01–14 September 2025.
27. Five day faculty development program Empowering Educators: Applied Learning, ICT & Innovation in Teaching organized by Baba Farid College of Engineering & Technology on 28th July, 2025 -1st August, 2025

❖ **Expert Talk in FDP/Workshop/Conference**

1. An expert talks in Faculty Development Programme on “Role of computer in Robotics and Mechatronics. IST-PTU. June 9-13, 2014. Organized by BMSCE, Muktsar.
2. An expert talks in Five day faculty development program on “Essential AI tools and software for academic excellence” organized by Baba Farid College Bathinda on December 4-8, 2023.
3. An expert talks in Five day faculty development program on Transforming Academic Research with AI: New Horizons in scholarly publications organized by Baba Farid College Bathinda on December 18-22, 2023.

❖ **MOOC Courses Completed**

1. NPTEL online certification on “A brief course on Superconductivity” organized by IIT, Guwahti.

❖ **Major Equipments/Instruments Used**

- XRD
- VSM
- Impedance Analyzer
- SEM
- TEM
- UV-Visible Spectrophotometer
- Raman Spectrophotometer
- Magneto-Electric Coupling Device

❖ **Computer Proficiency**

1. Microsoft operating systems and application software: MS Office
2. Origin Software
3. FullProof Software
4. Scientific data retrieval from various Internet portals like Sciencedirect, Pubmed, ACS Highwire, Scopus, Google Scholar and Scirus etc.

❖ **Co-Curricular/ Extra-Curricular Activities**

- **Cultural:** Bhangra, Acting

❖ **Personal Information**

Date of Birth: 29th August, 1985
Gender: Male
Nationality: Indian
Marital Status: Married
Hobbies: Music, Painting, Reading.
Languages known: Punjabi, Hindi, English

I hereby solemnly declare that all the information provided here is as per the best of my knowledge.

Date: -----

Place: -----



(Jaswinder Pal)