

1. **Name** **Dr. BALPREET KAUR**
2. **Designation** **Associate Professor**
3. **Date of Birth** **Sept. 01, 1975**
4. **Present Pay Scale** **37400-67000 + 9000 AGP (Unrevised)**



[balpreet\\_kaur@yahoo.com](mailto:balpreet_kaur@yahoo.com)

5. **Educational Qualifications**
  - ✓ Ph.D (Chemical. Engg), Thapar Institute of Engg. & Tech., Patiala
  - ✓ M.Tech. (Environmental Sci.&Engg), Punjab Technical Uni., Jalandhar
  - ✓ B.Tech. (Chemical. Engg), SLIET, Longowal

6. **Work Experience** **Teaching & Administrative Experience: 27 years**  
**Teaching Experience:**

Assoc. Prof. at S.B.S. State University, Ferozepur (formerly SBSSTC)	20.01.2013 to till date
Assistant Prof. at S.B.S. State University, Ferozepur	17. 07. 2000 to 19. 01.2013
Lecturer (Adhoc) at Sardar Beant Singh State Uni., Gurdaspur (Formerly BCET)	19.01.1999 to 15.07.2000

#### **Administrative Experience:**

**Dean Consultancy Cell: 27/01/2025-till date**

**Head of Deptt. (Chemical Engg.): 23/5/2022-26/01/25**

- Started new branch of B.Sc.Env.Sci in 2022 to cater the needs of Border/rural area of Ferozepur
- As Chairman Board of Studies of Chemical Engg. & Env. Sci., framed complete curriculum and syllabus for both streams
- Development of labs for newly established BSc. Env. Sci

**Dy Controller Examination (Conduct & Secrecy):  
15/1/2021-23/1/23**

- Managed the complete conduct of End Semester examination

- (Online/Offline/Blended) throughout the Academic year
- Handled the examination software
  - Dealt with irregularities/ malpractices during examination

### Other Responsibilities:

- Warden Girls Hostel: 2 years
- Chief Editor Veronica (college newsletter): 8 years
- Deptt. Academic Incharge : 4 years
- Editor Department Newsletter (Catalysis): 2 years
- Deptt. Purchase Officer: 2 years
- Deptt. Chief Counselor: 2 years
- Project Coordinator: 10 years
- NBA accreditation work: 2 years

### Research/ Practical Experience:

- Worked on many projects on waste water treatment and environmental issues at undergraduate and postgraduate level
- Carried out research on CO<sub>2</sub> capture via adsorption from adsorbents prepared from waste plastic. Thus, simultaneously addressed two major environmental issues: Disposal of plastic waste and carbon dioxide capture causing global warming

### Industrial Experience:

Management Trainee at Maharani Paints Pvt. Ltd, Faridabad  
1.07.1998-17.01.1999

- |                                 |  |   |                                 |  |                                |   |
|---------------------------------|--|---|---------------------------------|--|--------------------------------|---|
| 7.                              | <b>Area of Specialization</b>  | Environmental Science (CO <sub>2</sub> capture, adsorption, waste water treatment), Polymers  |                                 |  |                                |   |
| 8.                              | <b>Subjects teaching at</b>  | <table border="0"> <tr> <td style="vertical-align: top;"><b>(a) Undergraduate level:</b></td> <td> <ul style="list-style-type: none"> <li>➤ Chemical Process Control,</li> <li>➤ Intro. to Polymer Sci. &amp; Engg.</li> <li>➤ Rubber and Plastic technology</li> <li>➤ Polymer Reactor Design</li> <li>➤ Chemical Reaction Engineering-I</li> <li>➤ Chemical Process Safety</li> <li>➤ Chemical Process Calculations</li> <li>➤ Transport Phenomena</li> <li>➤ Environmental Science</li> <li>➤ Industrial pollution Control</li> <li>➤ Environmental Impact Assessment</li> <li>➤ Ecosystem Dynamics</li> </ul> </td> </tr> <tr> <td style="vertical-align: top;"><b>(b) Post Graduate Level</b></td> <td> <ul style="list-style-type: none"> <li>➤ Environmental Engineering</li> <li>➤ Advanced Polymer Science &amp; Engg.</li> </ul> </td> </tr> </table> | <b>(a) Undergraduate level:</b> | <ul style="list-style-type: none"> <li>➤ Chemical Process Control,</li> <li>➤ Intro. to Polymer Sci. &amp; Engg.</li> <li>➤ Rubber and Plastic technology</li> <li>➤ Polymer Reactor Design</li> <li>➤ Chemical Reaction Engineering-I</li> <li>➤ Chemical Process Safety</li> <li>➤ Chemical Process Calculations</li> <li>➤ Transport Phenomena</li> <li>➤ Environmental Science</li> <li>➤ Industrial pollution Control</li> <li>➤ Environmental Impact Assessment</li> <li>➤ Ecosystem Dynamics</li> </ul> | <b>(b) Post Graduate Level</b> | <ul style="list-style-type: none"> <li>➤ Environmental Engineering</li> <li>➤ Advanced Polymer Science &amp; Engg.</li> </ul> |
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| 9.                              | <b>Total Number of Research</b>  | <table border="0"> <tr> <td style="vertical-align: top;"><b>Published</b></td> <td> <ul style="list-style-type: none"> <li>➤ International Journals - 10</li> </ul> </td> </tr> </table>  | <b>Published</b>                | <ul style="list-style-type: none"> <li>➤ International Journals - 10</li> </ul>  |                                |   |
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- Publications**                   ➤ International Conferences - 07  
 (Annexure- A)                   ➤ National Conferences - 13

10. **No. of Students Guided**

- Ph.D**                   • Pursuing: 01  
**Master's**             • Completed: 03

11. **Academic Achievements and Awards**

- Best Research Paper Award (2023), Dept. of Chemical Engineering, Thapar Institute of Engineering & Technology, Patiala for paper titled "*CO<sub>2</sub> capture using chemically activated nanoporous carbon from waste plastic for CO<sub>2</sub> capture: Breakthrough adsorption study*".
- Merit Certificate for standing 2<sup>nd</sup> in B.Tech. Examinations at University level and securing 1<sup>st</sup> division with Honors
- Merit Certificate for standing 1<sup>st</sup> in M.Tech. Examinations at University level and securing 1st division with distinction.
- Co-Coordinator of Faculty development programme on "Recent trends in Polymers composites & their Engg. Applications" in collaboration with CIPET Amritsar.
- Awarded Best Poster Award At 3<sup>rd</sup> National conference (RACES-2011), held at Modi College, Patiala
- Awarded 2<sup>nd</sup> Prize in poster competition at 4th National conference (RACES-2012), held at Modi College, Patiala
- Awarded second prize for major project entitled 'Removal and recovery of phosphorous from waste water by using magnetite' in TECHNO-OPUS-2014 organized at SBSSTC, Ferozepur
- Awarded third prize for major project entitled "Comparative study of isolation of nano crystalline cellulose from rice husk and wheat straw' in TECHNO-OPUS-2015 organized at SBSSTC, Ferozepur
- Member Board of Studies Chemical Engineering MRSSTU, Bathinda
- Chairperson/ Member Board of Studies Chemical Engineering SBS State University, Ferozepur

12. **STC's organized as faculty**

- Green Energy Materials and Technology (2023)             1 week
- Recent Trends in Polymers, Composites & their Engineering Applications (2013)             1 week
- One Day workshop on "Application of Chemical Engineering in alternative sources of Energy" In collaboration with IChE, Doaba (2016)             1 week
- AICTE Sponsored one day workshop on "Clean Energy Technologies" (2017)             1 day

13. **Short-Term courses attended**

- Internet, Web & E-Commerce                                     2 weeks

- Industry Institute Interactions-New Challenges 2 weeks
  - Renewable Energy Based Technologies 1 week
  - Intelligent Computational Techniques 2 weeks
  - Business and Soft Skills Development in Institutions 1 week
  - Research Methodology Tools & Techniques 1 week
  - Engineering Materials 1 week
  - Nature Inspired Computational Intelligence 2 weeks
  - Soft Skills for Technical Teachers 1 week
  - Managerial Skills 1 week
  - Futuristic Materials 1 week
  - Analytical techniques for detection of Environmental Pollutants 2 weeks
  - Research Techniques 2 weeks
  - Material Technology & Characterization Techniques’ 1 week
  - Optimization using MATLAB through ICT” 1 week
  - Energy, Environment Sustainable Development through ICT” 1 week
  - Virtual Instrumentation in Academics, Research and Industry” 1 week
  - Emerging Materials: Characterization and Applications 1 week
14. **FDPs organized in the institute** AICTE Sponsored STTP on “Mathematical Methods and Computations in Engineering (MMCE-2019)” 1 week
15. **Membership** Life Member of ISTE

## (Annexure A)

### A. Papers Published in International Referred Journals

1. Sunil Rajoriya, **Balpreet Kaur**, Virendra Kumar Saharan,(2014) “*Kinetics and Isotherm on the Adsorption of Zn (II) from Aqueous Solutions by Natural Biosorbents*” *International Journal of Engineering Sciences & Research Technology* Vol. 3(8) ISSN No. 2277-9655, pp. 17-31
2. Sunil Rajoriya and **Balpreet Kaur** (2014) “*Adsorptive Removal of Zinc from Waste Water by Natural Biosorbents*” *International Journal of Engineering Science Invention* Vol 3(6)ISSN No. 2319 – 6734, pp. 60- 80

3. Harjinder Singh, **Balpreet Kaur**, O.P.Pandey (2014) “*Reduction of Wolframite Ore with Activated Charcoal to Produce Nano Tungsten Carbide*” *INROADS- An International Journal of Jaipur National University*, Vol 3(1),pp. 276-279
4. **Balpreet Kaur**, Raj Kumar Gupta, and Haripada Bhunia, “**Chemically activated nanoporous carbon adsorbents from waste plastic for CO<sub>2</sub> capture: Breakthrough adsorption study**” *Microporous and Mesoporous Materials*, 2019, 282, pp. 146-158
5. **Balpreet Kaur**, Raj Kumar Gupta, and HaripadaBhunia,“**CO<sub>2</sub> capture on activated carbon from PET (polyethylene terephthalate) waste: kinetics and modeling studies**” *Chemical Engineering Communications*, 2019, 207(8), pp. 1031-1047
6. **Balpreet Kaur**, Jasminder Singh, Raj Kumar Gupta, and Haripada Bhunia, “**Porous carbons derived from polyethylene terephthalate (PET) waste for CO<sub>2</sub> capture studies**”*Journal of Environmental Management*, 2019, 242, pp. 68-80
7. **Balpreet Kaur**, Rajeev Kumar Garg, Anirudh Pratap Singh, “**Treatment of wastewater from pulp and paper mill using coagulation and flocculation**” *Journal of Environment Treatment Techniques*, 2020, Vol 9(1), ISSN No.2309-1185, pp 158-163
8. **Balpreet Kaur** and Jitender Kumar, “**Adsorption study on porous carbon derived from pods of Prosopis Juliflora (Kikar) for removal of Pb(II) ions**” *International Journal of Advanced Research in Science and Engineering*, 2020, Vol 9(10), ISSN No.2319-8354, pp. 132-140
9. **Balpreet Kaur**, Pankaj Kalra, Navneet Kaur, **Prosopis Juliflora (Kikar) pods as adsorbent for removal of Cd(II) ions from aqueous streams**” *Materials Today Proceedings*, 2022,68, pp. 809-816
10. **Balpreet Kaur**, Pankaj Kalra, Navneet Kaur, **Synthesis of Sugarcane Bagasse Fiber Reinforced Polymer Composite**” *AIP Conference Proceedings*, 2025, 2807, pp 050008(1-8)

## **B. Papers published/presented in International conferences**

1. **Balpreet Kaur**, Harjinder Singh, O.P. Pandey, “*Reduction of Wolframite Ore with activated charcoal to produce Nano tungsten Carbide*”, International conference on Innovative Advancements in Engg. & Technology, JNU March 7-8, 2014, Jaipur
2. Niksha Mohindroo, **Balpreet Kaur**, Harjinder Singh, “*High Temperature Polymers: A review*”, Frontiers in Materials Research & Applications (FMRA),October 30-31, 2014, SBSSTC, Ferozepur
3. **Balpreet Kaur**, Gurvinder Singh, Amrinder Singh, Gaurav, “*Synthesis of nanocrystalline cellulose: A review*”, Frontiers in Materials Research & Applications (FMRA), October 30-31, 2014, SBSSTC, Ferozepur

4. Gagandeep Kaur, Gurvinder Singh, **Balpreet Kaur**, “*Comparative study of isolation of nanocrystalline cellulose from rice husk and sugarcane bagasse*”, Chemcon 2K15, December 27-30, IIT Guwahati
5. **Balpreet Kaur**, Raj Kumar Gupta, and Haripada Bhunia, “Carbon dioxide capture and utilization: A Review”, Chemcon-2018, December 27-30, NIT, Jalandhar
6. **Balpreet Kaur**, Pankaj Kalra, Navneet Kaur, *Prosopis Juliflora (Kikar) pods as adsorbent for removal of Cd(II) ions from aqueous streams*”, Indo-US International Conferences on Materials & Sustainable Engineering in Chemical and Allied Industry (MSECAI-2022), March 11-12, CU, Chandigarh.
7. **Balpreet Kaur**, Pankaj Kalra, Navneet Kaur, *Synthesis of Sugarcane Bagasse Fiber Reinforced Polymer Composite*”, Indo-US International Conferences on Materials & Sustainable Engineering in Chemical and Allied Industry (MSECAI-2022), March 11-12, CU, Chandigarh

### C. Papers Published in National conferences:

1. **Balpreet Kaur**, Rajeev Garg, A.P.Singh , “*Optimization of Alum dose as a coagulant for treatment of Pulp and Paper mill waste water* ”, Recent advances in Chemical & Environment Sciences (RACES-2012), Feb.28- Mar.03, 2011, Patiala
2. **Balpreet Kaur**, Satinder Kaur, Harjinder Singh, “*Bio-Medical waste Management: A review*”, National Conference on Waste Management and Recycling, December 09-10, 2011, SLIET, Longowal.
3. **Balpreet Kaur**, Harpreet Kaur, Varun Suri, Vikram, “*Variation in COD of Pulp and Paper mill waste water using biodegradable polymer*”, Recent advances in Chemical & Environment Sciences (RACES), March 03, 2012, Patiala
4. **Balpreet Kaur**, Rakesh Punia, “*Environmental Pollution control by fuel Oil Additives*”, Recent Advances in Chemistry and their impact on Environment, (NCRACE), Feb.4-5, 2012, Panipat
5. **Balpreet Kaur**, C.P.Singh, “*Environment Management System- A study*”, National Conference on Energy and Environmental Issues related to Chemical industries, EE Chem I, Feb.18-19,2012, Agra
6. **Balpreet Kaur**, C.P.Singh, “*Effect of Environmental Manufacturing Competitiveness for Development for Chemical Industries.*”, National Conference on Energy and Environmental Issues related to Chemical industries, EE Chem I, Feb.18-19,2012, Agra
7. **Balpreet Kaur**, Sarabjeet Kaur, Niksha Mohindroo, “*Moringa Oleifera: A Promising Bio-Coagulant for water purification*”, 6<sup>th</sup> National Seminar on New Paradigm in Chemical Sciences, Feb. 2013, Patiala
8. Harjinder Singh, **Balpreet Kaur**, O.P. Pandey, “*Nano Tungsten Carbide*”, Advances in Manufacturing Systems (CAMS), September 5-6, 2014, SBSSTC, Ferozepur

9. Gurvinder Singh, **Balpreet Kaur**, Harjinder Singh, “*Use of Nanocrystalline Cellulose in Composites*”, Advances in Manufacturing Systems (CAMS), September 5-6, 2014, SBSSTC, Ferozepur
10. **Balpreet Kaur** and Mehak Jain, “*Photodegradation and Photostabilisation of Polymers*”, Frontiers in Materials Research & Applications (FMRA), 24<sup>th</sup> December, 2015, SBSSTC, Ferozepur
11. Rahul Kothari, Ayush Arora, **Balpreet Kaur**, “*Removal of methylene blue from waste water using spent tea as adsorbent*”, Frontiers in Materials Research & Applications (FMRA), 24<sup>th</sup> December, 2015, SBSSTC, Ferozepur.
12. Gurleen Kaur, Navpreet Kaur, Lovepreet Kaur and **Balpreet Kaur**, “*Synthesis of natural fiber reinforced polymer composite using sugarcane bagasse*”, Frontiers in Materials Research & Applications (FMRA), 27-28<sup>th</sup> October, 2016, SBSSTC, Ferozepur
13. Prabhjot Kaur, Harjinder Singh and **Balpreet Kaur**, “*Cycle Time Reduction by Optimisation of Injection Molding Process Parameters*”, Frontiers in Materials Research & Applications (FMRA), 27-28<sup>th</sup> October, 2016, SBSSTC, Ferozepur.

#### **D. Invited Talks/ Lectures**

1. “Rain water harvesting and water conservation”, held at SBS State Uni., Ferozepur on 25.05.2022
2. “MALAB ODE solver and its applications in Engineering Systems”, held at SBS State Uni. (Formerly SBSSTC), Ferozepur on 05.07.2019
3. “Modelling and Simulation of Fixed Bed Absorption Column”, held at SBS State Uni. (Formerly SBSSTC), Ferozepur on 04.07.2019

#### **E. Career Counseling & Student Mentorship Certifications**

1. **Green Belt Certification** in Career Counseling, Global Career Counsellor (Univariety) 2024
2. **Global Career Counseling Program (3.0 CEUs)** – UCLA Extension, University of California, Los Angeles (UCLA), USA | Jan–Apr 2025



(Dr. Balpreet Kaur)