

CURRICULUM VITAE

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Research Interest:

- Solar Thermal, Drying/Greenhouse Drying, Renewable Energy, Waste to Energy

Educational Qualification

Degree	University	Title of Project/Dissertation/Research
Ph. D	MDU, Rohtak	<i>HEAT AND MASS TRANSFER ANALYSIS FOR THE DRYING OF GROUNDNUTS</i>
M.Tech	G.J.U.S&T, Hisar (Distinction)	<i>HEAT AND MASS TRANSFER ANALYSIS FOR THE DYING OF PAPAD</i>
BE	Bangalore University (First class)	<i>Development of Biomass-Based Devices for Thermal Applications with Specific Reference to Potter's Kiln</i>
The project was undertaken at the Combustion Gasification and Propulsion Laboratory (CGPL) of the Aerospace Department at Indian Institute of Science, Bangalore.		

HONOURS AND AWARDS

1. Certificate of Appreciation Publication of Research Papers with cumulative Maharshi Dayanand University, Rohtak
Impact Factor more than 5.0 in 2023.

RESEARCH PROJECTS

Completed minor research project on “*Experimental Natural Convection Groundnut Drying inside A Hybrid Greenhouse using Nanofluid and PCM*” sponsored by Dr. Radha Krishnan Foundation Fund, Maharshi Dayanand University, Rohtak (2019-2021) amount INR 50,000.

PATENTS: 04 Granted, 01 Published

Book Chapters

Title of book chapter	Title of book	ISSN/ISBN No.	Publisher
Briquette Production from Agricultural and Solid Waste: A Sustainable Solution to Achieve Net Zero Emissions	2025, Advances in Green Energy Technologies Proceedings of ICGEST 2023, Volume 2, pp: 135–162	978-981-96-0860-7	Springer Nature Singapore
Wastes Are in Spotlight: Using Biofibers to Cool PVT	2025, Advances in Green Energy Technologies Proceedings of ICGEST 2023, Volume 2, pp: 201–218	978-981-96-0860-7	Springer Nature Singapore

LIST OF RESEARCH PUBLICATIONS

Journal Articles

1. Ahlawat, Akash, Ashish Phogat, Upender Punia, Ramesh Kumar Garg, Ravinder Kumar Sahdev, and Deepak Chhabra. "Hybrid RSM-ANFIS Modeling for Concurrent Optimization of Fused Filament Fabrication and Graphene Content in High-Performance PLA Nanocomposites." *Journal of Composite Materials*. Published online August 17, 2026.
Latest JIF: 2.4 | Indexing: Scopus; Web of Science
2. Sehrawat, Ravin, Sumit Tiwari, Ravinder Kumar Sahdev, Adarsh Kumar Pandey, Rohan Sharma, Ajay Kumar, and Subraya Krishna Bhat. "A Review of Machine Learning for the Optimization and Control of Nanoparticle-Enhanced Thermal Energy Storage in Solar Applications." *Solar Energy Advances*. Available online August 5, 2026.
Indexing: Scopus;
3. Patel, A., D. Patel, H. Sinhmar, S. Tiwari, R. K. Mishra, and R. Sahdev. "Experimental Analysis of Earth Air Heat Exchanger for Space Cooling: A Clean Energy Approach." *Environmental Progress & Sustainable Energy* (2026): e70606. 10.1002/ep.70606.
Latest JIF: 2.6 | Indexing: Scopus; Web of Science
4. Shimpy, Y. Jangra, Narender, R. K. Sahdev, and M. Kumar. "Four Design Configurations of an Indirect Solar Fruit Dryer for Enhanced Shelf Life of Sapodilla (*Manilkara zapota*)." *Journal of Food Process Engineering* 49, no. 7 (2026): e70687. 10.1111/jfpe.70687.
Latest JIF: 2.9 | Indexing: Scopus; Web of Science
5. Kashyap, Vipin, Deepak Bhardwaj, Ravinder Gwal, Ravinder Kumar Sahdev, Ashwani Kumar Dhingra, and Deepak Chhabra. "Design- and Data-Driven Approach with FEA Framework to Enhance the Tensile–Tensile Fatigue Strength of FDM-Fabricated PETG Components." *Journal of Materials Engineering and Performance* (2026): 1–17.
Latest JIF: 2.6 | Indexing: Scopus; Web of Science
6. Narang, Rajan, Shivam Rohilla, Ashwani Kumar Dhingra, Ravinder Kumar Sahdev, and Deepak Chhabra. "Enhancing the Fatigue Strength of FDM Fabricated ABS Parts by Optimizing the Kinematic and Directional Dependent Process Parameters." *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences* (2026): 1–13. 10.1007/s40010-026-00992-9.
Latest JIF: 1.77 | Indexing: Scopus; Web of Science
7. Ahlawat, Akash, Ashish Phogat, Upender Punia, Ashish Chhikara, Ravinder Kumar Sahdev, and Deepak Chhabra. "Optimization of FDM 3D Printing Parameters for Enhancing Mechanical Performance of Carbon Fiber-Reinforced ABS Composite through PSO-ANN." *Engineering Computations* 43, no. 2 (2026): 823–836. 10.1108/EC-07-2025-0701.
Latest JIF: 2.1 | Indexing: Scopus; Web of Science
8. Sangwan, Manisha, Ravinder Kumar Sahdev, Sumit Tiwari, Deepak Chhabra, Sathans Suhag, Meena Kumari, and Aditya Sahdev. "Sustainable Indoor Convection Drying of Banana Slices: Kinetics and Model Validation." *Journal of Food Process Engineering* 48, no. 12 (2025): e70285.
Latest JIF: 2.9 | Indexing: Scopus; Web of Science **DOI:** 10.1111/jfpe.70285
9. Ahlawat, Akash, Ashish Phogat, Upender Punia, Watan Pal, Ravinder Kumar Sahdev, and Deepak Chhabra. "Investigation of Mechanical and Morphological Properties of 3D-Printed GR-PLA Nanocomposites with Process Parameter Optimization Using MOGA-ANN." *Progress in Additive Manufacturing* (2025): 1–18. 10.1007/s40964-025-01322-y.
Latest JIF: 5.4 | Indexing: Scopus; Web of Science (ESCI)
10. Ahlawat, Akash, Ashish Phogat, Rajan Narang, Ravinder Kumar Sahdev, Sandeep Rathee, and Deepak Chhabra. "Enhancing Tensile-Tensile Fatigue Performance of FDM-Fabricated Carbon Fiber-Nylon

Composites Using GA-ANFIS Optimization.” *Journal of Mechanical Science and Technology* 39, no. 9 (2025).

Latest JIF: 1.7 | **Indexing:** Scopus; Web of Science (SCIE)

11. Narang, Rajan, Akash Ahlawat, Ashwani Kumar Dhingra, Ravinder Kumar Sahdev, and Deepak Chhabra. “Optimization of Process Parameters to Investigate the Fatigue Behavior of Fused Deposition Modeling-Fabricated ABS Parts Using Hybrid Tool.” *Journal of Materials Engineering and Performance*. Published March 18, 2025. 10.1007/s11665-025-10992-2.

Latest JIF: 2.6 | **Indexing:** Scopus; Web of Science

12. Ahlawat, Akash, Ashish Phogat, Upender Punia, Ashish Chhikara, Ashwani Kumar Dhingra, Ramesh Kumar Garg, Ravinder Kumar Sahdev, and Deepak Chhabra. “Innovative Optimization of Mechanical Performance in Carbon Fiber-Reinforced Nylon Composite Using Artificial Neural Networks and Multi-Objective Genetic Algorithms.” *Journal of Materials Engineering and Performance*. Published March 14, 2025. 10.1007/s11665-025-10973-5.

Latest JIF: 2.6 | **Indexing:** Scopus; Web of Science

13. Singh, Ajay Pratap, Sumit Tiwari, Harender Sinhmar, Ravinder Kumar Sahdev, and Shivesh Tripathi. “Enhancing Solar Drying Performance with Heat Storage Technologies and Nanoparticles Integration: A Clean Energy Production.” *Journal of Energy Storage* (2025). 10.1016/j.est.2024.114669.

Latest JIF: 10.7 | **Indexing:** Scopus; Web of Science

14. Manisha, Sumit Tiwari, Ravinder Kumar Sahdev, Deepak Chhabra, Meena Kumari, Arshad Ali, Ravin Sehrawat, and Prabhakar Tiwari. “Advancements and Challenges in Battery Thermal Management for Electric Vehicles.” *Renewable and Sustainable Energy Reviews* 209 (2025): 115089. 10.1016/j.rser.2024.115089.

Latest JIF: 18.0 | **Indexing:** Scopus; Web of Science

15. Shankar, S. M., A. Ezhilarasan, S. Tiwari, R. K. Sahdev, and P. Tiwari. “Comparison of Different Solar Dryers with and without Heat Storage for Crop Drying: A Review.” *Environmental Progress & Sustainable Energy* (2025): e14479. 10.1002/ep.14479.

Latest JIF: 2.6 | **Indexing:** Scopus; Web of Science

16. Deswal, Sandeep, Ashish Kaushik, Ramesh Kumar Garg, Ravinder Kumar Sahdev, and Deepak Chhabra. “Optimization of Fused Deposition Modelling Printing Parameters Using Hybrid GA-Fuzzy Evolutionary Algorithm.” *Sādhanā* 49, no. 4 (2024). Published September 14, 2024.

Latest JIF: 1.4 | **Indexing:** Scopus; Web of Science (SCIE)

17. Sharma, Sonia, Rahul Rishi, Tarun, Ravinder Kumar Sahdev, and Sumit Tiwari. “Impact of Temperature Variation from 300 to 400 K on the Performance of Silicon Solar Cell.” *Applied Solar Energy* 59, no. 6 (2023): 803–810. 10.3103/S0003701X23600935.

Indexing: Scopus;

18. Ali, Arshad, Deepak Chhabra, Meena Kumari, Manisha, Pinkey, Sumit Tiwari, and Ravinder Kumar Sahdev. “Optimization and Characterization of Hybrid Bio-Briquettes Produced from the Mixture of Sawdust, Sugarcane Bagasse, and Paddy Straw.” *Environmental Science and Pollution Research* 31, no. 10 (2024): 15467–15490. 10.1007/s11356-024-32171-x.

Indexing: Scopus; Web of Science

19. Ali, Arshad, Meena Kumari, Manisha, Sumit Tiwari, Mahesh Kumar, Deepak Chhabra, and Ravinder Kumar Sahdev. “Insight into the Biomass-Based Briquette Generation from Agro-Residues: Challenges, Perspectives, and Innovations.” *BioEnergy Research* 17, no. 2 (2024): 816–856.

Latest JIF: 3.3 | **Indexing:** Scopus; Web of Science

20. Ahlawat, Akash, Ashish Phogat, Mohit Yadav, Ravinder Kumar Sahdev, Ashwani Kumar Dhingra, and Deepak Chhabra. “Fabrication and Analysis of ABS-HDPE-PC Composite Polymer Filament Used for FDM Printing Using Hybrid Algorithm.” *International Journal on Interactive Design and Manufacturing (IJIDeM)* (2023): 1–11. Published June 14, 2023.

21. Ali, Arshad, Meena Kumari, Jitender Singh Laura, Mohammad Rizwanullah, Manisha, Deepak Chhabra, and Ravinder Kumar Sahdev. "Optimal Composition of Biomass Pellet for Enhancing Calorific Value Using MOGA-ANN: A Mixture of Paddy Straw, Sawdust, Cow Dung, and Paper Pulp." *Biomass Conversion and Biorefinery* (2023): 1–17.
Latest JIF: 4.3 | Indexing: Scopus; Web of Science
22. Sehrawat, Ravin, Ravinder Kumar Sahdev, Sumit Tiwari, and Suresh Kumar. "Performance Analysis and Environmental Feasibility of Bifacial Photovoltaic Thermal Dryer with Heat Storage." *Energy Conversion and Management*, 2023, 117150.
Latest JIF: 11.8 | Indexing: Scopus; Web of Science |
23. Sehrawat, Ravin, Ravinder Kumar Sahdev, Deepak Chhabra, Sumit Tiwari, Rohit Khargotra, Tej Singh, and Manisha. "Environmental and Economic Management Study of Phase Change Material Integrated Bifacial Photovoltaic Thermal-Greenhouse Drying System: A Thermal Approach." *Energy Conversion and Management* 286 (2023): 117065.
Latest JIF: 11.8 | Indexing: Scopus; Web of Science |
24. Sehrawat, Ravin, Ravinder Kumar Sahdev, Deepak Chhabra, and Sumit Tiwari. "Experimentation and Optimization of Phase Change Material Integrated Passive Bifacial Photovoltaic Thermal Greenhouse Dryer." *Solar Energy* 257 (2023): 45–57. 10.1016/j.solener.2023.04.024.
Latest JIF: 6.6 | Indexing: Scopus; Web of Science |
25. Kumar, Mahesh, Shimpy, Ravinder Kumar Sahdev, Sunil Kumar Sansaniwal, Vijay Bhutani, and Himanshu Manchanda. "Experimental Forced Convection Greenhouse and Indirect Cabinet Drying of Date Fruits: A Comparative Study." *Journal of Thermal Analysis and Calorimetry* 148, no. 2 (2023): 5437. 10.1007/s10973-023-12057-9.
Latest JIF: 3.1 | Indexing: Scopus; Web of Science (SCIE)
26. Manisha, Sumit Tiwari, Deepak Chhabra, Meena Kumari, Prabhakar Tiwari, and Ravinder Kumar Sahdev. "Recent Developments on Photovoltaic Thermal Drying Systems: A Clean Energy Production." *Clean Technologies and Environmental Policy* 25, no. 7 (2023): 2099–2122. 10.1007/s10098-023-02514-2.
Latest JIF: 3.9 | Indexing: Scopus; Web of Science
27. Kumar, Mahesh, Shimpy, Ravinder Kumar Sahdev, M. A. Tawfik, and Nouredine Elboughdiri. "Natural Convective Greenhouse Vermicelli Drying: Thermo-Environ-Econo-Kinetic Analyses." *Sustainable Energy Technologies and Assessments* 55 (2023): 103002. 10.1016/j.seta.2022.103002.
Latest JIF: 7.4 | Indexing: Scopus; Web of Science
28. Sehrawat, Ravin, Ravinder Kumar Sahdev, and Sumit Tiwari. "Heat Storage Material: A Hope in Solar Thermal." *Environmental Science and Pollution Research* 30, no. 5 (2023): 11175–11178. 10.1007/s11356-022-24552-x.
Indexing: Scopus; Web of Science
29. Shimpy, Mahesh Kumar, Ravinder Kumar Sahdev, Himanshu Manchanda, and Anil Kumar. "Comparison of Groundnut Drying in Simple and Modified Natural Convection Greenhouse Dryers: Thermal, Environmental and Kinetic Analysis." *Journal of Stored Products Research* 98 (2022): 101990. 10.1016/j.jspr.2022.101990.
Latest JIF: 2.8 | Indexing: Scopus; Web of Science
30. Manisha, Pinki, Meena Kumari, Ravinder Kumar Sahdev, and Sumit Tiwari. "A Review on Solar Photovoltaic System Efficiency Improving Technologies." *Applied Solar Energy* 58, no. 1 (2022): 54–75. 10.3103/S0003701X22010108.
Indexing: Scopus;
31. Shimpy, Mahesh Kumar, Ravinder Kumar Sahdev, Himanshu Manchanda, and Anil Kumar. "Experimental Investigations on Latent Heat Storage Based Modified Mixed-Mode Greenhouse Groundnuts Drying." *Journal of Food Processing and Preservation* 46, no. 7 (2022): e16725. 10.1111/jfpp.16725.
Latest JIF: 3.1 | Indexing: Scopus; Web of Science |

32. Sharma, Anmol, Deepak Chhabra, Ravinder Sahdev, Ashish Kaushik, and Upender Punia. "Investigation of Wear Rate of FDM Printed TPU, ASA and Multi-Material Parts Using Heuristic GANN Tool." *Materials Today: Proceedings* (2022).
Indexing: Scopus; Web of Science coverage not verified here
33. Sansaniwal, Sunil Kumar, Mahesh Kumar, Ravinder Kumar Sahdev, Vijay Bhutani, and Himanshu Manchanda. "Towards Natural Convection Solar Drying of Date Palm Fruits (*Phoenix dactylifera* L.): An Experimental Study." *Environmental Progress & Sustainable Energy* 41, no. 6 (2022): e13862. 10.1002/ep.13862.
Latest JIF: 2.6 | **Indexing:** Scopus; Web of Science
34. Kumar, Mahesh, Ravinder Kumar Sahdev, Sumit Tiwari, Himanshu Manchanda, and Anil Kumar. "Enviro-Economical Feasibility of Groundnut Drying under Greenhouse and Indoor Forced Convection Hot-Air Dryers." *Journal of Stored Products Research* 93 (2021): 101848. 10.1016/j.jspr.2021.101848.
Latest JIF: 2.8 | **Indexing:** Scopus; Web of Science
35. Ahlawat, Akash, Ravinder Kumar Sahdev, R. K. Gupta, and Deepak Chhabra. "3D FDM Printable Polymer Composites and Polymer Nanocomposites: State of the Art." *Journal of Nano- and Electronic Physics* 13, no. 2 (2021): 02020-1–02020-4. 10.21272/jnep.13(2).02020.
Indexing: Scopus;
36. Kumar, Mahesh, Ravinder Kumar Sahdev, Sumit Tiwari, Hitesh Panchal, Himanshu Manchanda, and Kishor Kumar Sadasivuni. "Thermal Performance and Kinetic Analysis of Vermicelli Drying inside a Greenhouse for Sustainable Development." *Sustainable Energy Technologies and Assessments* 44 (2021): 101082. 10.1016/j.seta.2021.101082.
Latest JIF: 7.4 | **Indexing:** Scopus; Web of Science |
37. Tiwari, Sumit, Ravinder Kumar Sahdev, Mahesh Kumar, Deepak Chhabra, Prabhakar Tiwari, and G. N. Tiwari. "Environmental and Economic Sustainability of PVT Drying System: A Heat Transfer Approach." *Environmental Progress & Sustainable Energy* 40, no. 3 (2021): e13535. 10.1002/ep.13535.
Latest JIF: 2.6 | **Indexing:** Scopus; Web of Science |
38. Kumar, Mahesh, Ravinder Kumar Sahdev, Sumit Tiwari, Hitesh Panchal, and Himanshu Manchanda. "Experimental Free Convection Thin Layer Groundnut Greenhouse Drying." *Agricultural Engineering International: CIGR Journal* 21, no. 3 (2019): 203–211.
Indexing: Scopus;
39. Sahdev, R. K., Mahesh Kumar, and A. K. Dhingra. "A Comprehensive Review on Greenhouse Shapes and Its Applications." *Frontiers in Energy* 13, no. 3 (2019): 427–438. 10.1007/s11708-017-0464-8.
Indexing: Scopus;
40. Sahdev, R. K., Mahesh Kumar, and A. K. Dhingra. "Forced Convection Greenhouse Groundnut Drying: An Experimental Study." *Heat Transfer Research* 49, no. 4 (2018): 309–325. 10.1615/HeatTransRes.2018018321.
Latest JIF: 1.64 | **Indexing:** Scopus; Web of Science (SCIE)
41. Sahdev, R. K., Mahesh Kumar, and A. K. Dhingra. "Development of Empirical Expression for the Groundnut Drying inside a Greenhouse." *International Food Research Journal* 25, no. 5 (2018): 1858–1863.
Latest JIF: 1.31 | **Indexing:** Scopus; Web of Science (SCIE)
42. Sahdev, R. K., Mahesh Kumar, and Ashwani Kumar Dhingra. "Effect of Mass on Convective Heat Transfer Coefficient during Open Sun Drying of Groundnut." *Journal of Food Science and Technology* 54, no. 13 (2017): 4510–4516.
Latest JIF: 3.4 | **Indexing:** Scopus; Web of Science
43. Sahdev, R. K., Mahesh Kumar, and A. K. Dhingra. "Forced Convection Drying of Indian Groundnut: An Experimental Study." *FACTA UNIVERSITATIS Series: Mechanical Engineering* 15, no. 3 (2017): 467–477.
Latest JIF: 10.9 | **Indexing:** Scopus; Web of Science (SCIE)

44. Sahdev, R. K., Mahesh Kumar, and A. K. Dhingra. "Development of Empirical Expression for Thin Layer Groundnut Drying under Open Sun and Forced Convection Modes." *Agricultural Engineering International: CIGR Journal* 19, no. 4 (2017): 152–158.

Indexing: Scopus;

45. Bhupender, S., and R. K. Sahdev. "Power Generation from Speed Bumps: A Review." *International Journal of R&D in Engineering Science and Management* 4, no. 3 (2016): 177–185.

46. Sahdev, R. K., Mahesh Kumar, and A. K. Dhingra. "A Review on Applications of Greenhouse Drying and Its Performance." *Agricultural Engineering International: CIGR Journal* 18, no. 2 (2016): 395–412.

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47. Sahdev, R. K., Mahesh Kumar, and A. K. Dhingra. "Present Status of Peanuts and Progression in Its Processing and Preservation Techniques." *Agricultural Engineering International: CIGR Journal* 17, no. 3 (2015): 309–327.

Indexing: Scopus;

48. Sahdev, R. K. "Open Sun and Greenhouse Drying of Agricultural and Food Products: A Review." *International Journal of Engineering Research & Technology* 3, no. 3 (2014): 1053–1066.

Indexing: Scopus;

49. Sahdev, R. K., Sandeep, and Mahesh Kumar. "An Experimental Study on Open Sun Drying of Corn Kernels." *International Journal of Engineering Research & Technology* 2, no. 7 (2013): 1112–1119.

Indexing: Scopus;

50. Sahdev, Ravinder Kumar, Chinu Rathi Saroha, and Mahesh Kumar. "Convective Heat Transfer Coefficient for Indoor Forced Convection Drying of Corn Kernels." *International Journal of Mechanical Engineering and Robotics Research* 2, no. 4 (2013): 18–24.

51. Sahdev, R. K., P. Sehrawat, and Mahesh Kumar. "An Experimental Study on Open Sun Drying of Vermicelli." *International Journal of Advances in Engineering Sciences* 2, no. 3 (2012): 1–7.

52. Sahdev, R. K., N. Jain, and Mahesh Kumar. "Convective Heat Transfer Coefficient for Indoor Forced Convection Drying of Vermicelli." *IOSR Journal of Engineering* 15, no. 6 (2012): 1282–1290.

53. Kumar, Mahesh, P. Khatak, R. K. Sahdev, and O. Prakash. "The Effect of Open Sun and Indoor Forced Convection on Heat Transfer Coefficient for the Drying of Papad." *Journal of Energy in Southern Africa* 22, no. 2 (2011): 40–46.

Latest JIF: 1.6 | **Indexing:** Scopus; Web of Science (SCIE)

Book Chapters

54. Sehrawat, R., R. K. Sahdev, and S. Tiwari. "Performance Analysis of PCM-Integrated Greenhouse Dryer." In *Advances in Mechanical Engineering and Technology: Proceedings of the 6th International Conference on Advanced Production and Industrial Engineering (ICAPIE)-2021*, edited by R. M. Singari, P. K. Kankar, and G. Moona, 37–44. Singapore: Springer, 2022. 10.1007/978-981-16-9613-8_4.

Conference Proceedings

55. Chhabra, Deepak, Ashwani Kumar Dhingra, Ashish Kaushik, Sunita Dhingra, Ravinder Kumar Sahdev, and Sunil Dhingra. "Transforming Dentistry Using Artificial Intelligence-Based Innovations for Advanced Diagnostics and Sustainable Healthcare." In *2024 3rd International Conference on Computational Modelling, Simulation and Optimization (ICCMSO)*, 176–181. IEEE Computer Society, 2024.

Indexing: Scopus;

56. Dhingra, Ashwani Kumar, Deepak Chhabra, Sumit Gahletia, Sunita Dhingra, Ravinder Kumar Sahdev, Sunil Dhingra, Ashish Kaushik, and Mannu Rathee. "Driving Design and Performance of Dental Restorations through Next-Generation Additive Manufacturing Resins." In *2024 3rd International Conference on Computational Modelling, Simulation and Optimization (ICCMSO)*, 344–349. IEEE Computer Society, 2024.

Indexing: Scopus;

INTERNATIONAL CONFERENCES

1. Kritika, Meena Kumari, **Ravinder Kumar Sahdev**, Manisha, Surender Singh, Vipin Kumar, Naveen Kumar & Pooja (2025). A Comparative Study on Cooling of PVT. In: Suhag, S., Thakur, T., Mishra, S. (eds) Future Power Network and Smart Energy Systems, Volume 1. FPNSSES 2023. Lecture Notes in Electrical Engineering, vol 1463. Springer, Singapore. https://doi.org/10.1007/978-981-95-0473-2_15, Published: 14 November 2025
2. Pooja, Kumari, M., Sahdev, R.K., Kumar, N., Kritika, Ali, A. (2025). Investigating the Impact of Shading on Solar Photovoltaic Performance. In: Suhag, S., Thakur, T., Mishra, S. (eds) Future Power Network and Smart Energy Systems, Volume 1. FPNSSES 2023. Lecture Notes in Electrical Engineering, vol 1463. Springer, Singapore. https://doi.org/10.1007/978-981-95-0473-2_23, Published: 14 November 2025
3. P. Choubey, A. P. Singh, S. Tiwari, H. Sinhmar and R. K. Sahdev, "Performance Analysis of Semi-Transparent PVT Solar Air Collector Integrated with an Absorber Plate Under Different Climatic Conditions," 2025 4th International Conference on Computational Modelling, Simulation and Optimization (ICCMSO) 20-22 June 2025, Singapore, Singapore, 2025, pp. 339-344, doi: 10.1109/ICCMSO67468.2025.00067.
4. Ali, A., Sahdev, R.K. (2025). Briquette Production from Agricultural and Solid Waste: A Sustainable Solution to Achieve Net Zero Emissions. In: Vadhera, S., Kumar, R., Dewan, A. (eds) Advances in Green Energy Technologies. ICGEST 2023. Lecture Notes in Electrical Engineering, vol 1314. Springer, Singapore. https://doi.org/10.1007/978-981-96-0861-4_10
5. Kritika, Kumari, M., Singh, S., Kumar, V., Singh, G., Sahdev, R.K. (2025). Wastes Are in Spotlight: Using Biofibers to Cool PVT. In: Vadhera, S., Kumar, R., Dewan, A. (eds) Advances in Green Energy Technologies. ICGEST 2023. Lecture Notes in Electrical Engineering, vol 1314. Springer, Singapore. https://doi.org/10.1007/978-981-96-0861-4_14
6. Deepak Chhabra, Ashwani Kumar Dhingra, Ashish Kaushik, Sunita Dhingra, **Ravinder Kumar Sahdev**, and Sunil Dhingra. Transforming Dentistry using Artificial Intelligence based Innovations for Advanced Diagnostics and Sustainable Healthcare In the Proceedings of 3rd International Conference on Computational Modelling, Simulation and Optimization ICCMSO 2024, 14-16 June 2024. ISBN-13: 979-8-3503-6139-1, pp 176-181
7. Vishal, Ashwani Kumar Dhingra, Arshad, Deepak Chhabra, Akash Ahlawat, Sumit Tiwari, and **Ravinder Kumar Sahdev**, Indoor Forced Convection Drying of Giloy Stem: An Experimental Investigation, In the Proceedings of 3rd International Conference on Computational Modelling, Simulation and Optimization ICCMSO 2024, 14-16 June 2024. ISBN-13: 979-8-3503-6139-1, pp 319-324.
8. Ashwani Kumar Dhingra, Deepak Chhabra, Sumit Gahletia, Sunita Dhingra, **Ravinder Kumar Sahdev**, Sunil Dhingra, Ashish Kaushik, and Mannu Rathe, Driving Design and Performance of Dental Restorations through Next-Generation Additive Manufacturing Resins, In the Proceedings of 3rd International Conference on Computational Modelling, Simulation and Optimization ICCMSO 2024, 14-16 June 2024. ISBN-13: 979-8-3503-6139-1, pp 344-349.
9. Ajay Pratap Singh, Priya Choubey, Sumit Tiwari, Harender Sinhmar, and **Ravinder Kumar Sahdev**, Environmental Feasibility of Photovoltaic Thermal-thermoelectric Cooler (PVT-TEC) Air Collector with and without TEC, In the Proceedings of 3rd International Conference on Computational Modelling, Simulation and Optimization ICCMSO 2024, 14-16 June 2024. ISBN-13: 979-8-3503-6139-1, pp 402-406.
10. Singh, Ajay Pratap, Sumit Tiwari, **Ravinder Kumar Sahdev**, and Prabhakar Tiwari. "Effect on performance of PVT-TEC air collector with a variation in packing factor." In 2023 2nd International Conference on Computational Modelling, Simulation and Optimization (ICCMSO), pp. 237-241. IEEE Computer Society, **2023**. (23-06-2023)
11. Kumari, Meena, Surender Singh, Sumit Tiwari, and Ravinder Kumar Sahdev. "To Study the Effect of Changing Load Pattern on Voltage Profile in RDS." In 2022 International Conference on Computational

- Modelling, Simulation and Optimization (ICCMSO), pp. 285-290. IEEE, 2022. DOI: 10.1109/ICCMSO58359.2022
12. Singh, Ajay Pratap, Sumit Tiwari, Ravinder Kumar Sahdev, and Prabhakar Tiwari. "Effect of transmissivity on PV module glass for PVT-TEC air collector." In 2022 International Conference on Computational Modelling, Simulation and Optimization (ICCMSO), pp. 401-406. IEEE, 2022. DOI: 10.1109/ICCMSO58359.2022
 13. Sehrawat, Ravin, Ravinder Kumar Sahdev, Sumit Tiwari, Pinki Sehrawat, and Arun Kumar. "Recent advancements on Photovoltaic thermal and Greenhouse Dryer." In 2022 International Conference on Computational Modelling, Simulation and Optimization (ICCMSO), pp. 374-378. IEEE, 2022. DOI: 10.1109/ICCMSO58359.2022
 14. Ravin Sehrawat, Ravinder Kumar Sahdev, Sumit Tiwari, Mahesh Kumar. Innovations on photovoltaic technology and greenhouse dryer. In 1st National Conference on "New Frontiers in Energy and Environmental Sustainability (NFEES-2021)" organized by Department of Chemical Engineering, Pandit Deendayal Energy University, Gandhinagar, Gujarat, India on 27th and 28th February 2021.
 15. Sumit Tiwari, Prabhakar Tiwari, **Ravinder Kumar Sahdev** and V. K. Dwivedi, "Environmental Feasibility of PVT Drying System," (2020) International Conference on Electrical and Electronics Engineering (ICE3), Gorakhpur, India, 2020, pp. 773-777, DOI: 10.1109/ICE348803.2020.9122886. Electronic ISBN: 978-1-7281-5846-4, USB ISBN: 978-1-7281-5845-7, Print on Demand (PoD) ISBN: 978-1-7281-5847-1.
 16. **Experimental study on conventional and stepped solar stills coupled with evacuated tube collector solar water heater**, In the proceedings of 10th International Conference on Recent Developments in Engineering Science, Humanities and Management held at The Indian Council of Social Science Research (ACSSR) North West Regional Centre, Punjab University Campus, Chandigarh (India) RDESHM – 17 on 24th December 2017. (ISBN: 978–93–86171–89–4).
 17. **Hot Air Groundnut drying**. In the proceedings of the 2nd International Conference on Emerging Trends in Engineering, Science and Management (ESM – 17) held at Indian Federation of United Nations Associations, New Delhi (India) on 13th August 2017: 159 – 164. (ISBN: 978–93–86171–59–7).
 18. **Optimization of Single-Cylinder Compressed Air Engine Equipped with Pre-Chamber**. In 2nd International Conference on New Frontiers of Engineering, Science, Management and Humanities (ICNFESMH-2017) at (NITTTR) National Institute of Technical Teachers Training & Research, Chandigarh, (MHRD), Govt. of India) on 11th June 2017). **ISBN: 978 – 81 – 934083 – 3 – 9.**

NATIONAL CONFERENCES

- **“A study on Pulverized Biomass Stove (Poster Presentation),”** In the proceedings of Nation Conference in MAFAESE 2011, March 4 – 6, 2011, GJUS&T, Hisar, pp 200.

WORKSHOP ATTENDED

- One day National Workshop on Intellectual Property Rights (Patent, Design, Copyright, Geographical Indications, Trademarks) under the scheme of Azadi ka Amrit Mahotsav on 27th May 2022.
- A three days ISTE sponsored National Workshop on **Engineering Drawing – “The language of engineers”** organized by the Department of Mechanical Engineering from 23rd – 25th September 2011 in BRCM College of Engineering Technology, Bahal, Bhiwani (Haryana), India.

REFRESHER COURSE ATTENDED

- Attended three weeks Refresher Course on **“Research Methodology”** at Kannur University organized by UGC from 4th January 2012 to 24th January 2012.
- Two Weeks Online Refresher Course in **“Engineering, Physical Science and Management”** organized by Bharti Vidhyapeeth’s Institute of Computer Applications and Management (BVICAM), New Delhi, in collaboration with IEEE, Delhi Section, Computer Society Delhi Section, AICTE New Delhi, Computer

Society of India, ISTE Delhi Section, Safa Society New Delhi Section and AETE Delhi Section from 22 June to 4 July 2020.

- 21-Day Interdisciplinary Refresher Course (Online Mode Only) from January 07-27, 2021, organized by FDC, M. D. University, Rohtak, Haryana.

ORIENTATION COURSE ATTENDED

- Attended four weeks of Orientation course in UGC- Academic Staff College, B. P. S. Mahila Vishwavidyalaya, Khanpur Kalan (Sonapat) from Nov. 21 – Dec. 18, 2012.

Member of various committees as:

- Members of various admission committees B. Tech, LEET, M. Tech, PhD, Diploma/Certificate course in 3D Printing & Design,
- Convener/Co-Convener of Data Preparation of Annual Reports of UIET (34th, 35th, 36th, 37th, 38th, 39th, 40th, 41th, 42th, 43th, 44th, 45th, 46th, 47th, 48th), NAAC, Academic Audit, NIRF, AISHE data, etc.
- Superintendent /Deputy Superintendent during B.Tech/M.Tech Examinations
- Sessional Committees (Sep. 2012, Oct 2013, Sep 2014)
- Member of Exhibition committee during National Technology Day (11th May 2022) during celebration of “**Azadi Ka Amrit Mahotsav**”
- Member of Exhibition committee during Engineer’s Day (15th September 2022) during celebration of “**Azadi Ka Amrit Mahotsav**”
- Member of Department of Research Committee (DRC) from 2023 to 2025.
- Co-Convener of AAC/NIRF/Annual Report preparation of UIET (2024 – 2025).
- Member of Exhibition committee at **National Technology Day 2025** (2-5-2025)
- Member of Complaint Committee to address grievances/concern related to DOM (PCC-ME-308-G) for B. Tech 6th Sem. ME, QPID 3315 (17-06-2025).
- Member of Committee for scrutiny of Hostel Application forms
- Organizing Secretary of WORKSHOP ON “Build Your Low-Cost Open-Source Commercial 3D FDM Printer”: 04 October 2021.
- Organizer of one day National Workshop on Intellectual Property Rights (Patent, Design, Copyright, Geographical Indications, Trademarks) under the scheme of Azadi ka Amrit Mahotsav on 27th May, 2022.
- Attended **QIP** on “**Advances in Solar Energy Technology**” organized by Centre of Energy Studies, IIT Delhi from December 09 – 15, 2014.
- Attended **STC** under TEQIP-II on “**Recent Trends in Solar Energy Technology**” at IIT, Delhi from June 16 – 23, 2015.
- Attended **Faculty Development course** on **INNOVATION AND RESEARCH METHODOLOGY** from 9 Feb. to 18 Feb. 2019 in Faculty Development Centre, Maharshi Dayanand University, Rohtak.
- Attended **GIAN Course** on “**Quality Control for Products, Processes, or Services**” held at Maharshi Dayanand University Rohtak Haryana INDIA from July 22 – 27 July 2019.
- Session Chair in the AICTE-sponsored NATIONAL CONFERENCE on “Emerging Trends in Engineering, Science, and Management-2022” organized by the Department of Electrical Engineering, University Institute of Engineering and Technology, Maharshi Dayanand University, Rohtak on 26-27 Nov. 2022.
- Attended UGC-approved 6-day (36-hour) short-term professional development programme Under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching on ‘Implementation of NEP-2020 for University and College Teachers. from 12-20 June, 2023.
- Attended ATAL AICTE FDP on Artificial Intelligence and Robotics Organized by department of Electrical Engineering, UIET, MDU, Rohtak from 27 Nov. 2023 to Dec 2023

PARTICIPATION IN SEMINARS AND CONFERENCES:

- Two Days Science conclave on “Interaction of Innovative Young Minds with Eminent Scientist” organized by MD University, Rohtak & Department of Science & Technology, Govt. of Haryana during December 2-3, 2011.
- Organizing Secretary in TEQIP-II Sponsored **National Conference on Recent Developments in Mechanical engineering (NCRDME – 2015)**, Organized by Department of Mechanical Engineering, University Institute of Engineering and Technology, Maharshi Dayanand University, Rohtak, from November 20 – 21, 2015.

DETAILS OF M. Tech THESIS SUPERVISED: More than 20 M. Tech Dissertations supervised

DETAILS OF Ph.D. SUPERVISED/Ongoing

- Heat And Mass Transfer Analysis of PCM Integrated PVT Greenhouse Drying System (Dr. Ravin - Awarded)
- Fabrication and performance analysis of 3D printable carbon-reinforced polymer nanocomposites (Dr. Akash – Awarded)
- Ongoing (02)

(Dr. Ravinder Kumar Sahdev)