

Prof Rajesh Kumar

Presently working as Dean College Development Council-cum-Head, Department of Physics at Sardar Patel University, Mandi (HP). He is a postgraduate in Physics and Education, Master of Philosophy and Doctor of Philosophy in Physics and holds AIR-8th in CSIR-NET. He has earned lot of accolades in physics and various other fields. He has worked as a project fellow of Royal Academy of Engineering, London United Kingdom and was the Visiting Scientist to Cranfield University Bedfordshire, United Kingdom. He has a vast experience of twenty-three years in teaching, research and administration.

Prof Kumar is the member of Executive Councils, Board of Studies, Research Advisory Committees, Selection Committees of various Universities and Institutions. He is an IGNOU certified counselor. His research area is solar energy and is mainly working on synthesis of materials for solar energy use, essential oil extraction, solar thermal storage and CSP technology. Besides publishing 83 papers in national/international journals of repute, he has been granted 11 patents by IPR India out of 92 filed patents. He has also authored couple of books and has contributed many book chapters. He has presented research papers and has delivered invited talks in more than 100 seminars/conferences/faculty development programs/institutions. He has organized 23 seminars/conferences/workshops. He has guided 6 Ph D and 53 M Sc students for their research projects accomplishments. He is a regular visiting faculty to SCERT (Solan). He has generated lot of funds through various research projects funded by Ministry of New and Renewable Energy (Gov't of India), Royal Academy of Engineering, London (UK), Scientific and Engineering Research Board (Gov't of India) and HIMCOSTE-Shimla (HP) etc.

Ten Best Publications:

1. **Kumar Rajesh**, Aggarwal R K and Sharma J D, "Energy analysis of a building using artificial neural network: A review", Energy and Buildings, 65, 352-358, 2013. (IF=7.201). <http://dx.doi.org/10.1016/j.enbuild.2013.06.007>
2. **Rajesh Kumar**, R.K. Aggarwal, and J.D. Sharma, "Comparison of regression and artificial neural network models for the estimation of global solar radiations", Renewable & Sustainable Energy Reviews, 52, 1294-1299, 2015. (IF=16.799). <http://dx.doi.org/10.1016/j.rser.2015.08.021>
3. Rohit Jasrotia, Suman, Virender Pratap Singh, **Rajesh Kumar**, Ritesh Verma, Ankush Chauhan, "Effect of Y^{3+} , Sm^{3+} and Dy^{3+} ions on the microstructure, morphology, optical and magnetic

- properties NiCoZn magnetic nanoparticles”, Results in Physics, 15, 102544, 2019. (IF=4.565). <https://doi.org/10.1016/j.rinp.2019.102544>
4. Anil Kumar, Mamta Sharma, Pankaj Thakur, Vijay Kumar Thakur, Sameer S Rahatekar, **Rajesh Kumar**, “A review on exergy analysis of solar parabolic collectors”, Solar Energy, 197, 411-432, 2020. (IF=7.188). <https://doi.org/10.1016/j.solener.2020.01.025>
 5. Swati, Ritesh Verma, Ankush Chauhan, Mamta Shandilya, Xiangkai Li, **Rajesh Kumar** and Saurabh Kulshrestha, “Antimicrobial potential of Ag-doped ZnO nanostructure synthesized by the green method using Moringa oleifera extract”, Journal of Environmental Chemical Engineering, 103730, 2020. (IF=7.968). <https://doi.org/10.1016/j.jece.2020.103730>
 6. Ankush Chauhan, Ritesh Verma, Swati Kumari, Anand Sharma, Pooja Shandilya, Xiangkai Li, Khalid Mujasam Batoo, Ahmad Imran, Saurabh Kulshrestha and **Rajesh Kumar**, “Photocatalytic dye degradation and antimicrobial activities of Pure and Ag-doped ZnO using Cannabis sativa leaf extract”, Scientific Reports, 10: 7881, 2020. (IF=6.8). <https://doi.org/10.1038/s41598-020-64419-0>
 7. Rohit Jasrotia, Virender Pratap Singh, Bhawna Sharma, Ankit Verma, Pooja Puri, **Rajesh Sharma**, Mahavir Singh, “Sol-gel synthesized Ba-Nd-Cd-In nanohexaferrites for high frequency and microwave devices applications”, Journal of Alloys and Compounds, 830, 154687, 2020. (IF=6.371). <https://doi.org/10.1016/j.jallcom.2020.154687>
 8. Kirti Sharma, Ahmad Hosseini-Bandegharai, Pankaj Raizada, **Rajesh Kumar**, Pankaj Thakur, Vijay Kumar Thakur, Van-Huy Nguyen, Pardeep Singh “Fabrication of efficient CuO / graphitic carbon nitride based heterogeneous Photo-Fenton like catalyst for degradation of 2, 4 dimethyl phenol”, Process Safety and Environmental Protection, 142: 63-75, 2020. (IF=7.51). <https://doi.org/10.1016/j.psep.2020.06.003>
 9. R Jasrotia, N Kumari, **R Kumar**, M Naushad, P Dhiman, G Sharma, “Photocatalytic degradation of environmental pollutant using nickel and cerium ions substituted Co_{0.6} Zn_{0.4} Fe₂ O₄ nanoferrites”, Earth Systems and Environment, 5, 399-417, 2021. (IF=8.2). <https://doi.org/10.1007/s41748-021-00214-9>
 10. Ritesh Verma, Ankush Chauhan, Neha, Khalid Mujasam Batoo, **Rajesh Kumar**, Muhammad Hadhi and Emad H. Raslan “Effect of calcination temperature on structural and morphological properties of bismuth ferrite nanoparticles”, Ceramics International, 47 (3): 3680-3691, 2021. (IF=5.532). <https://doi.org/10.1016/j.ceramint.2020.09.220>