

Curriculum Vitae



Dr. Prashant Baburao Kharat

**Assistant Professor,
Vinayak Vidnyan Mahavidyalaya,
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Personal Details

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|--|--|-------------------|-------------|
| 1. Name In Full | : Kharat Prashant Baburao | | |
| 2. Father's Name | : Kharat Baburao Dagduba | | |
| 3. Mother's Name | : Kharat Nandabai Baburao | | |
| 4. Date of Birth | : 27 th September 1991 | 5. Nationality | : Indian |
| 6. Languages Known | : English, Hindi, Marathi | 7. Marital Status | : Unmarried |
| 8. Social Category | : UN-RESERVED (Maratha) | 9. Religion | : Hinduism |
| 10. Permanent Address | 11. Aadhaar No. : 3594 2940 2015
J 15/3, N2, CIDCO, Mukundwadi, Aurangabad, India (M.S.) - 431001 | | |
| 12. Name and Address Ph. D. Research Guide | Dr. K. M. Jadhav,
Senior Professor, Department of Physics,
Dr. Babasaheb Ambedkar Marathwada University, Aurangabad - 431001 | | |

Educational Qualifications

Examination Passed	Discipline	University / Institution	Marks	Class / Division	Year of Passing
S.S.C.	General	Shri Rajarshi Shahu Vidyalaya, Aurangabad	57.69 %	Second	2007
H.S.C.	Vocational	Vasantrao Naik Junior College, Aurangabad	58.18 %	Second	2009
B.Sc.	Science	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	74.12 %	First	2012
M.Sc. (Physics)	Science	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	7.45 CGPA	Distinction	2014
Ph.D. (Physics)	Science	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	"Synthesis, Characterization and Magnetic Properties of Some Nanoferrite Fluids"		2019

Teaching Experience

Organisation	Designation	From	To	In Months
Department of Physics (PG), M.S.P. Mandal's Deogiri College, Aurangabad.	Assistant Professor	July 2014	December 2019	66
Department of Physics, Vinayak Vidnyan Mahavidyalaya, Nandgaon (Kha.), Amravati	Assistant Professor	December 2019	Till date	06
Total Teaching Experience : 72 Months = 6 Years 0 Months				

Research Experience

Organisation	Designation	From	To	In Months
Department of Physics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.	Research Scholar	December 2014	January 2019	49
Department of Physics, Vinayak Vidnyan Mahavidyalaya, Nandgaon (Kha.), Amravati	Assistant Professor	December 2019	Till date	06
Total Research Experience : 55 Months = 4.66 Years				

Research Interests

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|---|---|
| <ul style="list-style-type: none"> Magnetic Nanofluids Magnetic Nanoparticles Magnetic Fluid Hyperthermia | <ul style="list-style-type: none"> Ultrasonic Studies of Liquid Mixtures Ferrite Thin Films Thermophysical Properties |
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Research Publications

Research Paper Published

International/National Journals	: 21 (Annexure- I)
International/National Conferences	: 12 (Annexure- II)
Total	: 33

Index and Citations

Citations	200	Index	20.74	Documents	21
h-index	8	Res. Int.	181.20	h-index	7
i10-index	6	Reads	13,297	Citations	126

Total No. of Seminars/Workshops/Conferences Attended-Participated: 09

Expertise and Skills

- ✚ Synthesis of Nanoparticles by Sol-Gel Auto-combustion and Chemical Co-Precipitation method.
- ✚ Analysis of properties the nanoparticles, thin films, nanofluids by standard techniques.
- ✚ Designing electronics circuits and small electronic devices.
- ✚ Drafting scientific reports and management event report.
- ✚ Handling computer Softwares such as Microsoft office (Word, Excel, PowerPoint), Origin, etc.
- ✚ Understanding team dynamics and encouraging good relationships between them.
- ✚ Planning, making decisions, and problem solving.
- ✚ Managing discipline and dealing with good conflict.

Extra - Curricular Activities

- ✚ Successfully completed 3 year service of National Cadet Corps (NCC) - Army wing and obtained 'B' and 'C' Certificates with 'B' grade.
- ✚ Completed Disaster Relief Training Camp *Avhan - 2008* at National Civil Defence College (NCDC), Nagpur.
- ✚ Represent Maharashtra State in **G. V. MAVLANKAR National 0.22 rifle 3 position 50m firing competition** at West Bengal in 2010.
- ✚ Participating several NCC camps Viz. Thal Sainik Camp (TSC), National Integration Camp (NIC), Annual Training Camp (ATC), etc.

- ✚ Participated in **1st Parliament of Indian Student Council Leaders**, Pune in 2011.
- ✚ Successfully completed 2 year service of National Service Scheme (NSS).
- ✚ Participated in **National Service Scheme (NSS) State Republic Day Parade Camp 2011** at **Mumbai** and selected as Platoon Commander (PC) for N.S.S. Contingent.
- ✚ Participated in N.S.S. **Pre-National Republic Day Parade Camp 2012** at Vyara, Distt: Tapi Gujarat.
- ✚ Playing Ashwamedh Inter University Sports Meet in **Handball** at university level.

Academic References

1. Dr. K. M. Jadhav,

Professor & Ex-Head,
Department of Physics,
Dr. Babasaheb Ambedkar Marathwada
University, Aurangabad – 431001
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Contact No. : +91-9422686061

2. Dr. R. B. Sharma,

Professor & Head,
Department of Physics,
Dr. Babasaheb Ambedkar Marathwada
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Declaration

I hereby declare that all the information furnished above are true, complete and correct to the best of my knowledge and belief.

Date : 1st June 2020

Dr. Kharat Prashant Baburao

Research Publications in International/National Journals

1. **Prashant B. Kharat**, Jitendra S. Kounsalye, Mahendra V. Shisode, K. M. Jadhav: *Preparation and Thermophysical Investigations of CoFe₂O₄-based Nanofluid: a Potential Heat Transfer Agent*. Journal of Superconductivity and Novel Magnetism 05/2018; DOI:10.1007/s10948-018-4711-y
2. **Prashant B. Kharat**, Ashok V. Humbe, Jitendra S. Kounsalye, K. M. Jadhav: *Thermophysical Investigations of Ultrasonically Assisted Magnetic Nanofluids for Heat Transfer*. Journal of Superconductivity and Novel Magnetism 08/2018; DOI:10.1007/s10948-018-4819-0
3. **Prashant B. Kharat**, Apparao R. Chavan, Ashok V. Humbe, K. M. Jadhav: *Evaluation of thermoacoustics parameters of CoFe₂O₄-ethylene glycol nanofluid using ultrasonic velocity technique*. Journal of Materials Science Materials in Electronics 11/2018; DOI:10.1007/s10854-018-0386-1
4. **Prashant B. Kharat**, S. D. More, Sandeep B Somvanshi and K. M. Jadhav: *Exploration of Thermoacoustics behavior of Water Based Nickel Ferrite Nanofluids by Ultrasonic Velocity Method*. Journal of Materials Science Materials in Electronics (2019): 1-11. <https://doi.org/10.1007/s10854-019-00963-4>
5. **Prashant B. Kharat**, Sandeep B. Somvanshi, Ashok V. Humbe and K. M. Jadhav : *Induction Heating and Cytotoxicity of Oleic Acid Functionalized Cobalt Ferrite for Biomedical Applications*. International Journal of Pharmaceutics, Elsevier (**Submitted**).
6. **Prashant B. Kharat**, Ashok V. Humbe, Jitendra S. Kounsalye and K. M. Jadhav: *Magnetic Induction Heating Studies of Oleic Acid coated NiFe₂O₄ Nanoparticles for Hyperthermia Applications*. Biomaterials, Elsevier (**Submitted**).
7. **Prashant B Kharat**, Jitendra S Kounsalye, Ashok V Humbe, Shankar D Birajdar, K M Jadhav: *Preparation and Diverse Properties of Cobalt Ferrite Ferrofluid*. International Journal of Advanced Research in Basic and Applied Science (2017): 106-109.
8. Ashok V. Humbe, **Prashant B. Kharat**, Anant C. Nawle, K. M. Jadhav: *Nanocrystalline Ni_{0.70-x}Cu_xZn_{0.30}Fe₂O₄ with 0 ≤ x ≤ 0.25 prepared by nitrate-citrate route: structure, morphology and electrical investigations*. Journal of Materials Science Materials in Electronics 11/2017; 29(4)., DOI:10.1007/s10854-017-8281-8
9. Jitendra S. Kounsalye, **Prashant B. Kharat**, Mahendra V. Shisode, K. M. Jadhav: *Influence of Ti⁴⁺ ion substitution on structural, electrical and dielectric properties of*

- Li_{0.5}Fe_{2.5}O₄ nanoparticles*. Journal of Materials Science Materials in Electronics 08/2017; DOI:10.1007/s10854-017-7656-1.
10. Jitendra S. Kounsalye, **Prashant B. Kharat**, Dhananjay N. Bhoyar, K. M. Jadhav: *Radiation-induced modifications in structural, electrical and dielectric properties of Ti⁴⁺ ions substituted Li_{0.5}Fe_{2.5}O₄ nanoparticles*. Journal of Materials Science Materials in Electronics 03/2018; DOI:10.1007/s10854-018-8874-x.
 11. Pallavi G. Undre, **Prashant B. Kharat**, R. V. Kathare, K. M. Jadhav: *Ferromagnetism in Cu²⁺ doped ZnO nanoparticles and their physical properties*. Journal of Materials Science Materials in Electronics 01/2019; DOI:10.1007/s10854-019-00688-4.
 12. Mahendra V. Shisode, Ashok V. Humbe, **Prashant B. Kharat**, K. M. Jadhav: *Influence of Ba²⁺ on Opto-Electric Properties of Nanocrystalline BiFeO₃Multiferroic*. Journal of Electronic Materials 10/2018; 48(1); DOI:10.1007/s11664-018-6715-6.
 13. Dhananjay N. Bhoyar, Mahendra V. Shisode, **Prashant B. Kharat**, A. A. Pandit, K. M. Jadhav: *Investigation of Structural, Electrical and Magnetic Behavior of SrTiO₃ Influence of Fe Ions*. Journal of Chemical, Biological and Physical Sciences 03/2018; 7(Special Issue).
 14. Apparao R. Chavan, Rahul R. Chilwar, **Prashant B. Kharat**, K. M. Jadhav: *Effect of Annealing Temperature on Structural, Morphological, Optical and Magnetic Properties of NiFe₂O₄ Thin Films*. Journal of Superconductivity and Novel Magnetism 01/2018; DOI:10.1007/s10948-018-4565-3.
 15. G. H. Kale, A. V. Humbe, **Prashant B. Kharat**, Dhananjay N. Bhoyar, K. M. Jadhav: *Tartaric Acid a Novel Fuel Approach: Synthesis and Characterization of CoFe₂O₄ Nano Particles*. Bionano Frontier 8, no. 3 (2015): 146-148.

Research Papers in International/National Conferences

16. **Prashant B. Kharat**, Jitendra S. Kounsalye, S. D. Birajdar and K. M. Jadhav: *Synthesis and Characterization of Ferrite Nanofluid for Heat Transfer Application*. 2nd Young Scientist's Conclave - India International Science Festival (IISF) 2016, National Physical Laboratory of India, New Delhi.
17. **Prashant B Kharat**, Mahendra V. Shisode, Dhananjay N. Bhoyar, S. D. Birajdar, K. M. Jadhav: *Synthesis and Characterization of Water Based NiFe₂O₄ Ferrofluid*. 61st DAE Solid State Physics Symposium 2016, KIIT University, Bhubaneswar, Orissa; 05/2017, DOI:10.1063/1.4980355.
18. **Prashant B. Kharat**, Jitendra S. Kounsalye, Ashok V. Humbe and K. M. Jadhav: *Synthesis, Characterization and Magnetic Properties of Ethylene Glycol Based Cobalt Ferrite Nanofluids*. 3rd Young Scientist's Conclave - India International Science Festival (IISF) 2017, Anna University, Chennai, Tamil Nadu.
19. **Prashant B. Kharat**, Sandeep B. Somvanshi, Jitendra S. Kounsalye, Suraj S. Deshmukh, Pankaj P. Khirade, K.M. Jadhav: *Temperature Dependent Viscosity of Cobalt Ferrite / Ethylene Glycol Ferrofluids*. 62nd DAE Solid State Physics Symposium 2017, DAE Convention Centre, Bhabha Atomic Research Centre, Anushaktinagar, Mumbai, India; 04/2018, DOI:10.1063/1.5028675.
20. **Prashant B. Kharat**, Sandeep B. Somvanshi, Dhananjay N. Bhoyar, K. M. Jadhav: *CoFe₂O₄ Magnetic Nanofluids: An Effective Medium for Magnetic Fluid Hyperthermia*. Young Scientist's Conclave - India International Science Festival (IISF) 2018, Indira Gandhi Pratishthan, Lucknow; 10/2018
21. **Prashant B. Kharat**, Swapnil A. Jadhav, Suraj S. Deshmukh, A.P. Keche , S. D. More, M. N. Sarnaik, and K. M. Jadhav: *Evaluation of Thermal Conductivity of the NiFe₂O₄ Ferrofluids under Influence of Magnetic Field*. 63rd DAE Solid State Physics Symposium 2018, Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India; 04/2019, DOI:10.1063/1.5028675.
22. Sandeep B. Somvanshi, **Prashant B. Kharat**, Dhananjay N. Bhoyar, K. M. Jadhav: *Magnetic Nanomaterials for Biomedical Applications: A Short Review*. Young Scientists' Conference (YSC), 4th India International Science Festival (IISF) 2018, Lucknow; 10/2018
23. Mahendra V. Shisode, **Prashant B. Kharat**, Dhananjay N. Bhoyar, VithalVinayak, M. K. Babrekar, K. M. Jadhav: *Structural and multiferroic properties of Ba²⁺ doped BiFeO₃ nanoparticles synthesized via sol-gel method*. 2nd International Conference on Condensed Matter And Applied Physics (ICC 2017); 05/2018, DOI:10.1063/1.5032611

24. Jitendra S. Kounsalye, **Prashant B. Kharat**, Apparao R. Chavan, Ashok V. Humbe, R. M. Borade, K. M. Jadhav: *Symmetry transition via tetravalent impurity and investigations on magnetic properties of $Li_{0.5}Fe_{2.5}O_4$* . 62nd DAE Solid State Physics Symposium 2017, DAE Convention Centre, Bhabha Atomic Research Centre, Anushaktinagar, Mumbai, India; 04/2018, DOI:10.1063/1.5028698
25. R Vipinkumar, Sandeep B. Somvanshi, **Prashant B. Kharat**, K. M. Jadhav: *Superparamagnetic Fe_3O_4 Nanoparticles: A Potential Candidate for Biomedical Applications*. National Conference on “Recent Advances in Applied Nano Materials”, Department of Physics, University College of Science, Osmania University, Hyderabad; 02/2018
26. Supriya Patade, Deepali Andhare, Sandeep B. Somvanshi, **Prashant B. Kharat**, K. M. Jadhav: *Preparation and Characterizations of Magnetic Nanofluid of Zinc Ferrite for Hyperthermia Application*. 4th International Conference on Nanotechnology (NANOCON - 2018), Bharti University, Pune; 10/2018
27. Rahul Chilwar, Sandeep B. Somvanshi, Apparao R Chavan, **Prashant B. Kharat**, M K Babrekar, K. M. Jadhav : *Synthesis and Characterization of Spray Deposited Lithium Ferrite Thin Film*. 01/2017