

Dr. Sangita Gajanan Dahotre

Professor & Head, Department of Physics,

Dr. Babasaheb Ambedkar Technological University,

Lonere, Tal . Mangaon, Dist. Raigad. 402103.

Mob.No. 7507910717.

Date of Birth : 11/03/1972. (Ahmednagar)



Educational Qualification:

1. Ph.D 2014, (Doctor of Philisophy) in the area of “Nanoferrites”
“ **STUDY OF Mn-Zn FERRITE AT NANOLEVEL**”.
2. B.Ed 1995, Ahmednagar.
3. M.Sc Physics 1994, A' Nagar College, A'Nagar.
4. B.Sc. Physics 1992, New Arts, Commerce and Science College, A'Nagar

Work Experience:

1. Junior Manager, Videocon Company, A'Nagar, Year 1995-1996.
2. Teacher in Higher Secondary School of Shri Samarth VidyaMandir, A' Nagar, Year 1994-1995.
3. Date of Joining at DBATU – 06/02/1997.
4. From last 26 years working in the Department of Physics, Dr. B. A. Tech. University, initially as a Assistant professor, from 2011 as Associate Professor, from 2016 as Professor and from 1 July 2020 Head and Professor till date.

Books published:

- Published e-Book, “Engineering Physics-I” as per the syllabus of Mumbai University in November 2021
- Published e-book, “Engineering Physics” as per the syllabus of Dr. B. A. T. University, Lonere in April 2022, ISBN: 978-81-957290-4-3
- Published Book Engineering Physics as per the syllabus of Dr. B. A. T. University, Lonere in Nov. 2022, ISBN: 978-81-957290-4-3

Contribution to NEP 2020:

- Translated book of “Applied Physics-I” in Marathi as National level contribution given by AICTE

- Translated book of “**Introduction to Mechanics (Degree)** ” in Marathi as National level contribution given by AICTE
- Translated book of “**Introduction to Electrodynamics (Degree)** ” in Marathi as National level contribution given by AICTE

Short Term Training Programmes:

1. Educational Technology, 10 May-21 May 1999, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
2. Pollution Control, 13 Dec.- 24 Dec. 1999, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
3. Refresher Course in Physics, 15 May-27 May 2000, VIT, Pune.
4. Intelligent Materials for New Millennium, 21 May-1 June 2001, Pondicherry Engineering College, Pondicherry.
5. Refresher Course in Condensed Matter Physics , 11 June-2 July 2001, Kolhapur University, Kolhapur.
6. Digital Image Processing and Pattern Recognition, 30 July-11 August 2001, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
7. Advanced Materials and Near Net Shape Manufacturing, 11 August-22 August 2003, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
8. Applications of Integral Transform Technique in Science and Engineering, 17 November-28 November 2003, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
9. NanoTecnology: Opportunities and Challenges, 19 December-31 December 2005, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
10. Mission 10X, 7 March-11 March 2011, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
11. Advanced Materials and Manufacturing Processes, 27 June-1 July 2011, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
12. Recent Advances in Nanoscience and Nanotechnology, 15 June-30 June 2012 NMU, Jalgaon.
13. Research Methodology, 26 November-30 November 2012, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
14. Nanotechnology, 10 December-14 December 2012, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
15. Nanotechnology :Opprtunities and Challenges, 10 June-21 June 2013, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
16. One week FDP on Nature Inspired Computations in Engineering (NICE) , 18-22 May, 2015, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
17. Recent Trends on Energy Research, 7-11, Dec. 2015, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.

18. Workshop on Outcome Based Education, 22-27, June 2016, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
19. Workshop on Intellectual Property Rights, 2 Sept. 2016, conducted by RUSSA under TEQIP II, at Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
20. A Two Days Workshop on Migration to Free and Open Source Software (FOSS), 16-17, Sept. 2016, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
21. One Week FDP on Internet of Things and Software Architecture under TEQIP III, 6-10, December 2018, at Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
22. One week STTP on "Integrated Approach towards Water Processing and Management" under TEQIP-III, 15-19 October 2019, at Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
23. One day workshop on "National Education Policy- 2019, at Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad, 26th September 2019.
24. Two week NPTEL-AICTE FDP on 'Physics of materials'[July-October 2019]
25. One week FDP on Characterization of Nanomaterials and Applications, 22-26 May 2023, NITTTR, Chandigarh and Dr. B. A. T. University, Lonere.

National Seminars and Conventions :

1. Synergogy Seminar, 17-19 March 2000, 1-2 April 2000, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
2. National Convention on Role of WomensEngg in Sustainable Development 28 October 2001, Institute of Engineers, Pune Local Centre, Pune.
3. Annual Convention of Maharashtra Goa Section On a new learning paradigm for technical teachers. 14-15 December 2001, Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.
4. National Seminar on Characterization and Analysis Techniques, 22-23 October, 2005, Birla college, Kalyan.
5. National seminar on Material processing and characterization technique, 28-29 March 2005 Dept. of Physics, Kolhapur University, Kolhapur.
6. National Conference on Recent Trends in Nano Science, 1-2 March 2012, Birla college, Kalyan. Paper presented: Study of Magnetic Properties of Mn-Zn nanoferrites.
7. Indian Science Congress, 3-7 January 2015, Mumbai University, Mumbai.
8. Indian Science Congress, 3-7 January 2016, Mysoore University, Mysoore. Paper presented: Nano Mn-Zn Ferrite for the study of Morphology and g_{eff} value.
9. Interdisciplinary State Level Conference on Science for Sustainable Development, 19 th Dec.2016, Anandibai Pradhan Science College, Nagothane, Raigad.

10. Indian Science Congress, 3-7 January 2017, Tirupati, “ Study of Structural and Magnetic properties of Nickel substituted Mn-Zn nanoferrite
11. One Day National Conference on Advanced Analytical Tools, for Materials Characterization (AATMC-2018), at Birla College of Arts, Science and Commerce, Kalyan, on 28 th Feb. 2018. Paper Presented - Study of Structure, Magnetic and Electrical Properties of Al substituted M type Calcium nanoHexaferrite.
12. Indian Science Congress, 3-7 January 2019, Lovely Professional University, Phagwara Jalandhar, Punjab. Presented a paper entitled “ Preparation and Characterization of Al Substituted M type Ca NanoHexaferrite”.
13. One Day National Conference on ‘ADVANCED MATERIALS’, Saturday, the 24th July 2021, , B.K. Birla College(Autonomous), Kalyan and MRSI-MC. Paper Presented: “Synthesis of Strontium doped Bismuth Ferrite for Spintronics and Photocatalytic Applications”, S. D. Rajadhyax, S. G. Dahotre.
14. One day National Conference on “Climate change and youth:time for action”, wednesday 12th January 2022, B.K. Birla College(Autonomous), Kalyan
Paper Presented “ Study of magnetite Nonoparticles for Spintronics Applications: A brief review”
S. D. Raut, S. G. Dahotre, S. N. Jadhav.
(Full paper published in proceedings)
15. Avishkar 2023, 12-15 Jan 2023 S. D. Raut, S. G. Dahotre, paper presented in state inter-university Research Convension, S.P. Pune University.

International Conferences:

- 1) MRSI 16 AGM of Materials Research Society of India, 10-12 Feb 2005, NCL, Pune. Paper presented: FMR study of $Mn_{1-x}Zn_xFe_2O_4$ ($x= 0.5$).
- 2) International Conference on Physics for World and Society Celebration of World Year of Physics, 2-4 Dec 2005, University of Rajasthan and Engg. College of Bikaner, Bikaner. Paper presented: FMR study of Nanostructured Mn-Zn Ferrite ($x= 0.4$).
- 3) Indo Singapore Symposium on Advanced Functional Materials, 24-26 Feb 2006, IIT Bombay. Paper presented: FMR study of Mn-Zn Ferrites ($x= 0.6$).
- 4) International Conference on Empowerment of Women through Adult Education, 29-30 Sept. 2007, Smt. C.H. Mansukhani College, Ulhasnagar.
- 5) International Conference on Material Science Research and Nanotechnology, 27-29 Feb 2008 Mother Teresa University, Kodaikanal. Paper presented :Mn-Zn Nanoparticles- Preparation and Properties.
- 6) International Conference on Nanomaterials and Applications 2008, 9-11, Dec. 2008, Shivaji University, Kolhapur.
- 7) International Conference on RETMAC-2010, 14-15, February 2010, NIT Karnataka, Surtkal, Mangalore. Paper presented: Study of Magnetic properties of Mn-Zn Ferrite.

- 8) International Conference on Computer, Electrical and Electronics Engineering, IETE Cynosure-2013, 26-27, Dec. 2013, Dr Babasaheb Ambedkar Technological University, Lonere, Raigad. Paper presented: Superparamagnetism and FMR study of Nano Mn-Zn Ferrite.
- 9) International Conference on NanoPolymeric Materials (ICNPM-2015) , 13-15 Nov. 2015 Kottayam, Kerala, Paper Presented: Effect of Zn substitution on FMR and FTIR spectroscopy of Nano Mn-Zn Ferrites”
- 10) Venus International Foundations Centre for Advanced Research and Design, 3rd Annual Women's Meet- AWM 2018, March 3, 2018 at Chennai.
- 11) International conference on Environmental development and Sustainability. [2018], “Impact on the Structural and Magnetic properties of Al substituted M type Calcium nanoHexaferrite. A.C.P. College, Devrukh, 15th Dec 2018.
- 12) 6th International conference on Nanoscience and Nanotechnology(virtual Conference), February 01-03, 2021 at SRM University, Chennai. “Ferro-nano-carbon Split Ring Resonators a Bianisotropic Metamaterials in X- Band.” R. P. Gawade, S.G. Dahotre
- 13) One day International conference on ‘perspectives of preparing and Implementing the swachh Bharat Abhiyan’-6th march 2021 at Birla College, “Synthesis of grapheme like Nano carbon for Sustainable Development in Energy sector.” R.P. Gawade, S.G. Dahotre, L. N. Singh
- 14) 6th International conference on ‘perspectives of preparing and Implementing the swachh Bharat Abhiyan’-6th march 2021 at Birla College, “Synthesis of Cobalt Substituted Magnetite for energy storage and minimization of e-waste.” S.D. Raut, S.G. Dahotre, L. N. Singh, S. N. Jadhav
- 15) 6th International conference on ‘perspectives of preparing and Implementing the swachh Bharat Abhiyan’-6th march 2021 at Birla College, “ Synthesis of Barium doped Bismuth Ferrite and It’s Applications in Microwave Devices.” S. D. Rajadhyax, S.G. Dahotre, L. N. Singh
- 16) One Day Virtual International Conference on Recent Advances in Engineering, Science and Technology-2021 (ICRAEST-2021) 16 July, 2021 Paper Presented: “Synthesis and Characterization of Magnetite and Cobalt Ferrite Nanoparticles by Sol-Gel Auto Combustion Technique” S. D. Raut, S. G. Dahotre, L. N. Singh, S. N. Jadhav
- 17) One Day Virtual International Conference on Recent Advances in Engineering, Science and Technology-2021 (ICRAEST-2021) 16 July, 2021 Paper Presented: “Synthesis and Structural Characterization of Ba doped Bismuth Ferrite By Sol Gel Method for Cleaner Environment”, S. D. Rajadhyax, S. G. Dahotre, U.L. Shinde, L. N. Singh
- 18) Advanced Technologies in Chemical, Construction and Mechanical Sciences (ICATCHCOME 2023) 9-10 Feb 2023, KPR Institute of Engineering and Technology, Coimbatore, Tamilnadu, Paper presented: “Investigation of Structural and Magnetic effect of Ca²⁺ doped Ferrous Ferric Ferrite Nanoparticles Via Sol-Gel Autocombustion Synthesis” S. D. Raut, S. G. Dahotre, L. N. Singh, S. N. Jadhav

19) International conference on Materials Science and Nanotechnology For Sustainable Applications (ICMSNSA-2023), 23-24 March 2023, MGM University, Sambhajinagar, paper presented: “Materials Science and Nanotechnology for Sustainable Application” S. D. Raut, S. G. Dahotre

International Journal Publications:

1. Morphology and g_{eff} study of Nano $\text{Mn}_{1-x}\text{Zn}_x\text{Fe}_2\text{O}_4$.
S.G. Dahotre, L.N. Singh
Journal of Nanotechnology and Nanoengineering, **2015**, Vol. 1, Issue 3, Page 1-5.
2. Superparamagnetism and FMR study of Nano Mn-Zn Ferrites.
S.G. Dahotre, L.N. Singh
Advances in Applied Science Research, **2014**, 5(1): 146-149.
3. Synthesis and Characterization of Nanoferrites.
S.G. Dahotre, L.N. Singh
Journal of Pure Applied and Industrial Physics, Volume 3, Issue 3, July **2013**.
Citation 1, h index 1
4. Study of Magnetic properties of Nanostructured Mn-Zn Ferrites.
S.G. Dahotre, L.N. Singh
Archives of Physics Research, **2011**, 2(1):81-89, ISSN0976-0970, CODEN(USA):APRRC7,
Citation 1, h index 1
5. Synthesis and Characterization of La substituted M type Ca Hexaferrite.
V.S. Shinde, S.G. Dahotre, L.N. Singh
i-Manager's Journal of Materials Science, Vol 7, Issue 2 [20-25], July-Sept.2019.
6. Synthesis and Characterization of Al substituted Ca hexaferrite.
V.S. Shinde, S.G. Dahotre, L.N. Singh
Heliyon 6 [2020] e03186, January 2020
7. Comparative study of structural and magnetic properties of Al and La substituted calcium Hexaferrite. V.S. Shinde, S.G. Dahotre, L.N. Singh International Journal of Research and analytical review(IJRAR), 6(2), 569-574 June2019 ISSN2349-5138
8. Study of Structural and magnetic properties of Ni substituted M-type calcium hexaferrite.
V.S. Shinde, S.G. Dahotre, L.N. Singh Integrated Ferroelectrics, 213(1) 2021
<https://doi.org/10.1080/10584587.2020.1859830>
9. “Comparative study of structural and magnetic properties of Ni and La substituted calcium Hexaferrite” V. S. Shinde, S. G. Dahotre Cerâmica 67 (2021) 301-307
<http://dx.doi.org/10.1590/0366-69132021673833111>

10. "Synthesis and Characterization of Magnetite and Cobalt Ferrite Nanoparticles by Sol-Gel Auto Combustion Technique", S. D. Raut, S. G. Dahotre, L. N. Singh, S. N. Jadhav
"International Journal of Innovation in engineering and Science ISSN- 2456-3463",
Vol 6 Number 10, 2021 <http://doi.org/10.46335/IJIES.2021.6.10.4>
11. "Synthesis and Structural Characterization of Ba doped Bismuth Ferrite By Sol Gel Method for Cleaner Environment", S. D. Rajadhax, S. G. Dahotre, U.L.Shinde, L. N. Singh
"International Journal of Innovation in engineering and Science ISSN- 2456-3463",
Vol 6 Number 10, 2021
<http://doi.org/10.46335/IJIES.2021.6.10.4>
12. "Structural and Magnetic Studies of $\text{Co}_x\text{Fe}_{3-x}\text{O}_4$ By Sol-gel Auto combustion Technique For Spintronics Applications"
S. D. Raut, S. G. Dahotre, L. N. Singh, S. N. Jadhav
GIS JournalPage No: 644-662
DOI:20.18001.GSJ.2021.V8I9.21.38018
<http://www.gisscience.net/VOLUME-8-ISSUE-9-2021/>
13. "Microstrip Patch Antenna Simulation using ComsolMultiphysics"
R. P. Gawade, S. G. Dahotre
GIS JournalPage No: 1295-1303
DOI:20.18001.GSJ.2021.V8I9.21.38074
<http://www.gisscience.net/VOLUME-8-ISSUE-9-2021/>
14. "Sugarcane waste based synthesized graphene like nanocarbon (GNC) for shock absorption application ." Rohini P. Gawade, Sangeeta G. Dahotre and Shamal L. Chinke Phys. Scr.97(2022)115403
DOI:<https://doi.org/10.1088/1402-4896/ac96d8>

Other Activities:

1. Recognized as a Ph.D guide w.e.f. july 24,2015, in the Department of Physics,
Reference No: 01/05/Ph.D Guide/242/ Date: 05/10/2015, (Executive Council Meeting, dated 24 july, 2015) Dr. B.A .Tech. University, Lonere.
2. Warden of Ladies Hostel of Dr. B. A. Tech .University, Year 1997, 1998, 1999.
3. Assistant Rector of Ladies Hostel of Dr. B.A. Tech .University, Year 2000, 2001, 2002.
4. Head of the Physics Department during year 2006-2007.
5. Coordinator for the cell for services to community and Economy Development 2006-2007.
6. Worked as Examination Coordinator.
7. Coordinator of training programmes for teachers from ITI, Year 2006-2007.
8. Coordinator of National Science day and Technological day. Year 2006-2007.
9. Anchoring for the programme of Dr. Ambedkar Jayanti 14 April 2007, 2008, 2009, 2016, 2017, 2018, 2019.
10. Committee Member for the Interview (Lab Officers and Scientific Officer) Pannel at IAT (Indian Armament Technology) Pune, during year 2012.

11. Paper reviewer for the conference at COEP, 7-9 Dec. 2011.
12. Rector of Ladies Hostel Dhavalgiri, June 2011- June 2012.
13. Member for admission of 15% konkan quota for first year engg., Year 2012.
14. Member for the selection committee of Laboratory Assistant, Year 2012, 2013, 2014.
15. Member for the selection committee of Contract Basis faculty, Year 2012, 2013, 2014, 2015.
16. Member of Anti-ragging committee, Year 2012-13, 2014-15.
17. Member of Women's Cell, Year 2014-15, 2015-16, till date.
18. Coordinator of Medical Facility Centre (March 2017 – March 2019)
19. Announcement coordinator during convocation ceremony, Year 2015, 2016, 2017.
20. RC member of Department of Physics.
21. BOS member of Basic Sciences.
22. Conducted a One day workshop on “The i-Pro Program Stressing Success” for all Students in First Year B.Tech and First Year Diploma courses, 13-14 th January, 2017, in collaboration with DTE and MACCIA.
23. Coordinator for Women's Day Celebration, 8 th March, 2018.
24. Board of Study member in the Department of Physics.
25. Examinations Malpractices committee member (2017-2018, 2018-2019).
26. NPTEL Exam October 2018, Solid State Physics, Elite grade certificate.
27. Chairman of Question Paper setter from year 2018 till date.
28. NPTEL Exam Dec 2019, Physics of materials.
29. NPTEL Exam March 2020, Surface Engineering of nanomaterials, Elite plus silver grade certificate.
30. BOS Chairman, From July 2020.
31. Academic Council member From August 2020.
32. RPAC Chairman From September 2020.
33. Paper Setter For Technical Post IIGM November 2021.
34. E-book for Mumbai University
[8https://play.google.com/store/apps/details?id=com.primeussystems.seam](https://play.google.com/store/apps/details?id=com.primeussystems.seam)
35. E-book for DBATU
<https://play.google.com/store/apps/details?id=com.primeussystems.seam>
36. Metored in Avishkar 2023,12-15 Jan 2023, State Inter- university Research Convension for post PG students, S.P. Pune University.
37. Rector of Malaygiri Hostel From Nov. 2022 till date

Achievements:

1. Invited to give invited talk on “ Effect of Zn substitution on FMR and FTIR spectrscopy of Nano Mn-Zn Ferrites” , at International Conference on Nanostructured Polymetric Materials and Polymer Nanocomposites(ICNPM-2015) , November 13-15, 2015. Mahatma Gandhi University, Kottayam, Kerala.

2. Chaired the Session at the International Conference on Nanostructured Polymetric Materials and Polymer Nanocomposites (ICNPM-2015) , November 13-15, 2015. Mahatma Gandhi University, Kottayam, Kerala.
3. Invited to give talk and felicitated on International Women's Day by SwakulsaliSamajMandal, Mulund, Mumbai, on International Women's Day, 8 march, 2016.
4. Published e-Book, ' Engineering Physics-I' November 2021.
5. Ph.D. Completed- 1 student.

Awards and Prizes :

- **“1st Prize (Best paper presentation) awarded** entitled with “Synthesis and Characterization of Magnetite and Cobalt Ferrite Nanoparticles by Sol-Gel Auto Combustion Technique” , S. D. Raut, S. G. Dahotre, L. N. Singh, S. N. Jadhav
One Day Virtual International Conference on Recent Advances in Engineering, Science and Technology-2021 (ICRAEST-2021) 16 July, 2021
- **“FIRST PRIZE WINNER”** for the Paper presentation 6th International conference on ‘perspectives of preparing and Implementing the swachh BharatAbhiyan’-6th march 2021 at Birla College,
“ Synthesis of grapheme like Nano carbon for Sustainable Development in Energy sector.” R.P. Gawade, S.G. Dahotre, L. N. Singh
- **“ DISTINGUISHED WOMEN IN SCIENCE AWARD, VIWA 2018.”** for the contribution and achievement in the field of Physics., During 3 rd March 2018, at **Chennai**, by Venus International Foundation, Centre for Advanced Research and Design. On the occassion of International Women's Day.
- **“ YOUNG RESEARCHRES AWARD“** for the paper presentation at International Conference on Computer, Electrical and Electronics Engineering, IETE, Cynosure-2013, Dr. B. A. Tech. University, Lonere.
- **“SECOND PRIZE WINNER”** for the paper presentation at National conference on RTNS (Recent Trends in Nano Science) , March 1-2, 2012, Birla college, Kalyan.
- To fetch technological advancement in teaching and research
- Developing integrity and excellence in student, staff and faculty of university to inculcate technological advancement in teaching and research area.