#### **CURRICULAR VITAE**

Name: - Dr. Bharti Shashank Anerao

**Designation: -** Assistant Professor

Official Address: -Department of Physics, Dada Ramchand Bakhru Sindhu Mahavidyalaya,

Panchpaoli, Nagpur-17.

Residential Address: - Plot No. 39, Ladikar Lay-out, Manewada road, Nagpur-24

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Date of Birth: -11/04/1980

### **Educational Qualification:-**

Ph.D.(Physics), 2013, RTM, Nagpur University, Nagpur.

Title of Ph. D.: "Investigation on electrical and magnetic properties of conducting Polymer Nanooxide composites"

M.Sc.(Maths), 2010, RTM, Nagpur University, Nagpur.

P.G. Diploma in Nanotechnology, 2009, RTM, Nagpur University, Nagpur.

B.Ed., 2004, RTM, Nagpur University, Nagpur.

M.Sc.(Physics), 2003, RTM, Nagpur University, Nagpur.

B, Sc.(PCM), 2001, RTM, Nagpur University, Nagpur.

#### **RESEARCH SUPERVISOR:**

Ph.D. Supervisor in the subject Physics, under the faculty of Science & Technology, R.T.M. Nagpur University, Nagpur (Reg. No.- Ph.D. cell/RRC/Guide/213.

#### **Research Project:**

- Completed UGC Sponsored Minor Research Project entitled as "Effects of conducting polymer on the performance of Nano-oxide anode materials for rechargeable lithium ion batteries" UGC WRO (Western Regional office, Ganeshkhind, Pune, 2020.
   Funding: 3 Lakhs forty thousand Rs.)
- Sanctioned Research Project Entitled as "Effects of conducting polymer on the performance of nano zinc-oxide anode materials for an electrochemical Supercapacitor application" Under Rashtrasant Tukdoji Maharaj Nagpur University Research Project Scheme, 2024. {Funding: 3 Lakhs Rs.}

#### **Patent Published:**

- Patent published on "Implementation of Classification Models and their impact on treating cancerous nodes through nanoparticles" Patent No. 20221071426A, 2023.
- Patent published on "Colpomenia Sinutosa based Biosynthesized Nanoparticle composition for Diabetes" Patent No.202141041799A, 2021.

## **Teaching Expertise**

- Quantum mechanics
- Nanotechnology
- Solid State Physics
- Bio-Physics

# <u>Professional Experience</u>

- Worked as an Assistant Professor in N.Y.S.S. College of Engineering, Nagpur from Aug. 2008.
- Worked as an Assistant Professor in J. L. Chaturvedi College of Engineering, Nagpur from Aug.2010.
- Worked as an Assistant Professor in W.C. E. M., Nagpur from sept 2011.
- Currently working as an Assistant Professor in Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur from 5<sup>th</sup> sep. 2013.

### **Administrative Experiences:**

- Coordinator of Mentor-Mentee scheme.
- Teacher In-charge of Rangoli competition on the occasion of Inter-collegiate events.
- Teacher In-charge of Poster making competition on the occasion of Intercollegiate events.
- Conducted workshop on "Interview Techniques, at Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur.
- Teacher Incharge of "Marathi bhasha Gaurav Din", at Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur.
- Teacher In-charge of Poster making competition on the occasion of 125<sup>th</sup> birth Anniversary of Dr. Babasaheb Ambedkar at Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur.
- Coordinator of "Students seminar through power point presentation" on the occasion of National Science Day, at Dada Ramchand Bakhru Sindhu Mahavidyalaya, Nagpur.

### **Other Important Positions held:**

- Worked as O.I.C. for Examination Sum-2013 in W.C.E.M., Nagpur.
- Contribution in organizing various extra-Curricular activities in the college.
- Contribution in Admission committee in college.
- Contribution in Training and Placement committee in college.
- Contribution in Feedback analysis committee in college.
- Contribution in Teaching Learning committee in college.

**<u>Life Memberships:</u>** Women's Association Member ship, NUTA Membership.

### **Awards/Achievements:**

- Distinguished Scientist Award" by IJIEMR Elsevier SSRN Research Awards 2021.
- "Samaz Gaurav Puraskar" By Maharashtra state Sahitya and Sanskrutik Mandal, Bombay 2018.
- "Women Association Award" By Women Association, RTMNU, Nagpur 2016
- "Vidarbha Sahitya Sangh Award", By Purshottam Pundlik Mirashe Association, Nagpur 2019.
- "Great Achievement Award" By Maharashtra Nabhik Mahamandal, Nagpur 2020.

## **Any Contribution to Society:**

- Financial assistance to poor and needy students in terms of admission/Exam. Fees, books and Uniform.
- Tree plantation by Woman Association at Manewada, contributing sustainable development.
- Environmental education Awareness among people in residential area.

#### **List of Publications:**

### **International journals:**

- Bharti S. Anerao, Arti M.Chaudhari, "Structural and Morphological properties of Zinc oxide nanoparticles synthesized by sol-gel method", Journal of Advanced Multidisciplinary Research studies and Development, 2(6), pp-13-16, ISSN- 2583-6404, UGC Care listed journal, 2024.
- 2. **Bharti S. Anerao**, Arti M. Chaudhari, Arpana G. Wahane, "Nickel oxide doped Polyaniline nanocomposite for high performance Supercapacitor applications", International Journal for innovative engineering and Management research, 2023, ISSN No.2456-5083, 12(5), pp.469-474.

- 3. Arti M.Chaudhari, **Bharti S. Anerao**, "Role of e-Governance in Quality enhancement", Vidyawarta, ISSN No. 2319-9318, pp-37-39, **2022**. Int. Peer reviewed.
- 4. **Bharti S. Anerao,** Arti M.Chaudhari, "Environment managements and Human rights", B.Aadhar, **2020**, ISSN No. 2278-9308, 256, pp.143-146, Peer reviewed.
- 5. **Bharti S. Anerao,** Arti M.Chaudhari, Subhash B.Kondawar,"Effect of Nickel Oxide filler on the Optical and Morphological properties of nanocrystalline Nickel Oxide reinforced Polyaniline nanocomposites" **Sambodhi**, **2020**, ISSN No.2249-6661, 43(4),pp.24-30, **UGC care Journal**.
- Bharti S. Anerao, Arti M.Chaudhari, Subhash B.Kondawar," Synthesis and Characterization of Polyaniline-nickel oxide nanocomposites for electrochemical supercapacitor" Materials Today Proceedings, 2020, ISSN No.2214-7853, Vol.29, pp.880-884, SCOPUS, IF:1.69.
- 7. **B. I. Nandapure,** S. B. Kondawar, A. I. Nandapure, D.V. Jamkar, "Synthesis and Characterization of nickel oxide nanoparticles with wide band gap energy prepared via chemical precipitation method" International Journal of current engineering and scientific research, **2019**, ISBN No. 2394-0697, Vol.6, pp.438-441.Peer reviewed.
- 8. A. M. Chaudhari, **B. S. Anerao**, "Role of Nanomaterials in Environmental Protection" International Multidisciplinary E-Research journal, **2019**, ISBN No. 2348-7143, special issue-157, pp. 264-265.Peer reviewed.
- 9. A. I. Nandapure, **B. I. Nandapure**, "Role of Nanomaterials in Preventing Hypertension" International Multidisciplinary E-Research journal, **2019**, ISBN No. 2348-7143, special issue-182, pp.7-8, Peer reviewed.
- 10. Bharti I. Nandapure, Subhash B. Kondawar, Arti M. Chaudhari, "Application of NiO nanoparticles in modern textile and food nutrition", International journal of Researches in Social sciences and information studies, 2019, (ISSN No.)2347 8268, pp.6-10.
- 11. A. I. Nandapure, **B. I. Nandapure**, S. B. Kondawar, "Synthesis and structural characterization of Nickel oxide Polyaniline Nanocomposite", International journal of scientific Research in science Technology, **2018**, (ISSN No.) 2395-6011, 4(1), pp-11-14.
- 12. A. I. Nandapure, S. B. Kondawar, **B. I. Nandapure**, M.M. Chaudhari, "Structural and optical properties of Polyaniline/Nickel ferrite nanocomposites", International journal of Advanced material proceedings, **2017**,(ISSN No.)0976-3961, 2(7),pp-463-467.
- 13. A. I. Nandapure, M.M. Chaudhari, S. B. Kondawar, B. I. Nandapure "Synthesis and Optical properties of Zinc ferrite / Polyaniline nanocomposites", International Journal of Engg., Research and Technology, ISSN: 2278-0181, Vol.4 (30), 2016, Impact factor-1.632.

- 14. **B. I. Nandapure,** S. B. Kondawar, A. I. Nandapure, "Structural Characterization of Co<sub>3</sub>O<sub>4</sub> Nanoparticles Synthesized By a Sol-Gel Method" International Journal of Science and Research (IJSR), **2015**, ISBN No. 2319-7064, pp.440-441 Impact factor-0.44.
- 15. A.I. Nandapure, S.B.Kondawar, P.S.Sawadh, B. I. Nandapure, "Synthesis and Characterization of zinc ferrite polyaniline Nanocomposites", International Journal of Advanced Scientific and Technical Research, 2015, vol.5, ISSN No. 2249-9954, pp.82-89 Impact factor-3.94.
- 16. Bharti I. Nandapure, Arti I. Nandapure, Zeenat Parvin, Subhash B. Kondawar, "Magnetic Properties of Nickel Oxide Nanoparticles Synthesized By Sol-Gel Method", International journal of Researches in Biosciences, Agriculture and Technology, 2015, Issue 2, ISSN No.2347-517X, pp.65-70 Impact factor-5.060.
- 17. **B. I. Nandapure**, S. B. Kondawar, A. I. Nandapure, "Structural characterization of NiO Nanoparticles and its Bio-applications", International *Journal of Researches in Biosciences Agriculture & technology*, **2014**, 2347-517X Impact factor-5.060.
- 18. A. I. Nandapure, S. B. Kondawar, **B. I. Nandapure**, "Nanocrystalline nickel ferrite reinforced conducting polyaniline nanocomposites", *Journal of Advanced Material Letters*, **2014**, **5**(6), 339-344, ISSN-09763961, Impact factor-1.93.
- 19. **B. I. Nandapure**, S. B. Kondawar, M. Y. Salunkhe, A. I. Nandapure, "Magnetic and transport properties of conducting polyaniline/nickel oxide nanocomposites", *Journal of Advanced Materials Letters*, 2013, Vol. 4(2), pp.134-140, ISSN-09763961 Impact factor-1.93.
- 20. **B. I. Nandapure**, S. B. Kondawar, M. Y. Salunkhe, A. I. Nandapure, "Nanostructure Cobalt oxide reinforced conductive and magnetic polyaniline nanocomposites", *Journal of composite materials*, **2013**, Vol.47, No.5, pp. 1-9, Impact factor-1.494.
- 21. A.I. Nandapure, S.B. Kondawar, P.S. Sawadh, B. I. Nandapure, "Effect of zinc substitution on magnetic and electrical properties of Nanocrystalline nickel ferrite synthesized by refluxing method", *Physica-B, Condensed Matter, SCOPUS*, 2012 Vol. 407, No. 7, pp 1104-1107, ISSN-0921-4526, Impact factor-1.386.
- 22. **B. I. Nandapure**, S. B. Kondawar, M. Y. Salunkhe, A. I. Nandapure, "Magnetic properties of Nanostructured cobalt and nickel oxide reinforced polyaniline composites", *International journal of computer applications*, **2012.** ICBEST-(2), pp.9-14 ISSN-0123-4560, Impact factor-3.1524.
- 23. **B. I. Nandapure**, S. B. Kondawar, M. Y. Salunkhe, A. I. Nandapure, "Studies on chemically synthesized conducting polyaniline cobalt oxide Nanocomposites",

- Proceeding of UGC sponsored National conference on Nanoscience & technology organized by Dept of Physics & Chemistry, Shivaji Science College, 178-182, **2011**.
- 24. **B. I. Nandapure,** S. B. Kondawar, M. Y. Salunkhe, A. I. Nandapure, "Studies on chemically synthesized conducting polyaniline cobalt oxide Nanocomposites", Proceeding of UGC sponsored National conference on Nanoscience & technology organized by Dept of Physics & Chemistry, Shivaji Science College, 178-182, **2011**.

## **Chapter in Edited Book:**

- "Novel nanocomposites as an Electrochemical Supercapacitor", E-Book-'Role of Basic Sciences in Modern Engineering', Weser Books, Germany, ISBN No. 978-3-96492-295-3, pp.105-113, 2021
- "Synthesis and Characterization of NiO nanoparticles" Publication in Edited Book named as "Applications of Environmental Biotechnology for Global Sustainability, Dr. Korla Swapnavahini, **Global Academy, Turkey**, ISBN No.: 978-625-8284-30-0, 2023.
- "Review on Health disparities and Research priorities in LGBT community"
  Publication in Edited Book named as ", Voices of the Marginalized Gender , Notion Press-2024.

# <u>Participation in International/National conference, Workshop:</u>

- Research paper presentation on "Nickel oxide doped polyaniline as high performance electrode material for Supercapacitor applications in an International Conference on Multidisciplinary Research and Global Transformation, Research Education Solution (Micro Enterprise with MSME, Government of India) in Association with Sidvi Foundation.
- ➤ Research paper presentation on, ""Optical and Morphological Properties of Nanocrystalline Nickel Oxide Nanoparticles" 26<sup>th</sup> International conference by International academy of physical sciences on Advance in Physics, Dept. of Physics, Gondwana University, Gadchiroli-2021.
- Research paper presentation on "Electrochemical Properties of Polymer doped NiO Nanocomposites for Supercapacitor applications" in National conference on "New Frontiers of Biological Sciences" [NCNFBS-2023], Education society Amravti's Science College, Pauni, Dist. Bhandara.
- Research paper presentation on, "Synthesis of Novel Nanocomposites as an Electrochemical Supercapacitor" by International Online Conference on Nano-Materials (ICN 2021), Mahatma Gandhi University, P.D Hills P. O, Kottayam, Kerala, India, Wroclaw University of Technology, Wroclaw, Poland and Gdansk University of Technology, Poland & Wuhan University, China.
- ➤ Research paper presentation on "Effect of NiO on the optical and morphological properties of PANI/NiO nanocomposites" Aspire A Multidisciplinary International

- Conference, G H Raisoni college of commerce science & Technology, Nagpur in association with NDEJJE University, Uganda.
- Research paper presentation on, "Effect of polyaniline on the performance of nanocrystalline nickel oxide as electrode material for high performance Supercapacitor" International conference on Advanced Functional Materials, Dept. of Chemistry, Kamla Nehru Mahavidyalaya, Nagpur.
- Research paper presentation on , "Effect of NiO filler on the Optical and Morphological properties of Nanocrystalline Nickel oxide reinforced polyaniline nanocomposite", International conference on Advances in Physical, Chemical and Mathematical Sciences, Department of Physics, Math's and Chemistry, RTMNU, Nagpur
- Attended state level One-day workshop on "NAAC'S Revised Accreditation Framework-An Overview & Intellectual Property Right" held on 20<sup>th</sup> April 2019 at Arts, Commerce and Science College, Arvi, Dist. Wardha.
- Attended Awareness Workshop on "SWAYAM and NPTEL", held on 19-20<sup>th</sup> July 2019 at Ramdeobaba Engineering College, Nagpur.
- Attended workshop on "Hands on training on Laboratory Equipment's and Instrumentation" on 30-31<sup>st</sup> July 2019 at Sevadal Mahila Mahavidyalaya, Nagpur.
- Attended Workshop on "MATLAB", on 23<sup>rd</sup> Sept. 2019 at Hislop college, Nagpur.
- Attended National conference on "Modern Science and Religious beliefs" 22<sup>nd</sup> Jan.2018 at S. F. S. college, Nagpur.
- ➤ UGC sponsored National conference on Indian Heritage in chemistry organized by Hislop college, Nagpur on 27<sup>th</sup> March 2018.
- ➤ One day workshop on "Intellectual Property Right" held on 25<sup>th</sup> April 2018 at D.R.B.Sindhu Mahavidyalaya, Nagpur.
- ➤ UGC sponsored National conference on Entrepreneurial skills Enhancement in science organized by Yashwant Mahavidyalaya, Wardha, on 15<sup>th</sup> Dec. 2018.
- ➤ UGC sponsored international conference on Quality upgradation in Engineering, science and Technology organized by Bapurao Deshmukh college of Engineering, Sevagram on 28<sup>th</sup> Sep.2017.
- ➤ UGC sponsored National conference on "Recent Advances in Polymer Science & Technology" Organized by Dept. of Plastics & Polymer Technology, Nagpur on 24 Jan-2015.
- ➤ Workshop on "Curriculum Development of B.E.in Engg. Physics organized by G.N.I.E.T. Nagpur on 27<sup>th</sup> Aug -2012.
- ➤ UGC sponsored National conference on Nanoscience & Technology organized by Dept of Physics & Chemistry, Shivaji Science College, on 21-22 Feb-2011.

- International conference on Intelligence system New & Renew energy sustainable Technology & Nanotechnology (IISM-2011) organized by Institute of science Technology on 18-20 Feb 2011.
- ➤ Participation in CSIR sponsored International conference on Chemistry of Mankind (ICCM-2011) organized by Department of Chemistry, R.T.M. Nagpur University, Nagpur on 9-10 Feb 2011.
- Workshop on "Improving teaching competencies" organized by Lokmanya Tilak Jankalyan shikshan Sanstha, Nagpur on 24-26<sup>th</sup> Dec-2010.
- ➤ Participation in International conference on Nanomaterials and application organized by Department of Physics & Chemistry, Shivaji University, Kolhapur on 9-11 Dec 2008.