

CURRICULUM VITAE

NARENDRA DADARAO DESHMUKH

(M. Sc., M. Ed., M. Phil., M.A., Ph. D Regd.)

Designation: Scientific Officer - E
(Since 1991 working at HBCSE)

Date of Birth: 17/04/1965.

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Academic Qualifications:

Exam.	Year of Passing & University	Subject	Class
B. Sc.	1988 Amravati University	Zoology, Botany and Chemistry	First Class
M. Sc.	1990 Amravati University	Zoology Animal Physiology	Gold Medalist
B. Ed.	1991 Amravati University	Education	First Class
M. Ed.	1993 University of Mumbai	Education	Second Class
M. Phil	2004 Alagappa University	Education	First Class
M. A. (Edn.)	2011 University of Mumbai	Education	Second Class

Ph. D Topic: ‘A study of students’ misconceptions in biology at secondary school level and development of remedial research based material’. Regd. at University of Mumbai

Professional Focus: Students Conceptions, Low-cost innovative science experiments, Teachers Training, Biology Education and Environment Education, Science Popularization, Nature walk and Open Educational Recourses.

Current Interests:

1. Development of training module for practising teachers and teacher educators in science.
2. Development of open educational resources for teachers, students and parents to provide quality education to all.
3. Development of remedial modules on various biological concepts.

Abroad visits:

1. Cyprus (2004): To attend CASTME -Europe Conference
2. Egypt (2004): Sight seeing and professional interaction.
3. Jordan (2004): Sight seeing and professional interaction.
4. Malaysia (2006): To attend CESA conference.
5. England (2008): To participate in a PCF5 Forum.
6. Greece (2009): To attend CESA conference.
7. Singapore (2010): To participate in a Asian Biological Science conference.

Nature of Work:

1. Working as **Co-coordinator** for Developing Open Educational Resources for Schools project (OER4S Project), funded by RGSTC, Govt. of Maharashtra.
2. Working as **Editor/Writer/committee member** for Kumar Vishwakosh, a project by Vishvakosh Nirmiti Mandal, Govt. of Maharashtra.
3. Working as **Course developer for D. El. Ed course**, a NIOS: MHRD, Delhi, and for **e - B. Ed** - 'Teacher as an e-learning specialist- Practitioner Role' (YCMOU – MKCL – I-CONSENT programme).
4. Working as **Coordinator and Resource person** for the training programme for students and teachers.
5. Acting as an **examiner/judge/chief guest/experts** at Ward, Regional and State level for Science Exhibitions, INSPIRE award, Balshree, State and National Children Science, etc.
6. Acting as **Quiz Master & Programme Organizer/ Coordinator**.

Awards and Scholarship

1. Secured the highest marks in Botany at the B.Sc. examination (1988) & was awarded cash award by the College.
2. Secured the highest Marks in Zoology at the B.Sc. examination (1988) & was awarded cash award by the College.
3. Secured the First Rank in the University at M.Sc. level (1990) & was awarded a gold medal.
4. Received award in 1991 from Nehru Memorial Fund, New Delhi.
5. Received Best Instructional Material Dr. Anand Waskar award (2007) from YCMOU for Krutipradhan Vidnyan Adhyapan: Jaivik Vidnyan book.

6. Honored as “Sammelanadhyaksha” (President of the Congress) for Children Science Congress organised at S. P. S. High School, Uttur, Gadhinglaj, January 5 - 6, 2009.

Research in Science Education- vigorously involved in research work and conducted the following studies.

1. Effective use of science activities and experiments for students’ leisure time
2. Peer group interaction among Ashram School Students
3. Study of Science club activities in School
4. Students’ Ideas about Nature
5. Students’ Perception about Cloning and Biotechnology
6. Textbook analysis
7. Study of teacher’s perception about new Science & Technology textbook
8. Study of students misconceptions

Selected List of Publications

I. Books, Technical Report, Modules & Journals (HBCSE):

1. **Vidnyan Prashnamanjush** (Marathi version)- The quiz book contains 1000 science questions pertaining to themes like, human body, health and hygiene, plant and animals life, environment, energy and natural and man made substances (in association with S. C. Agarkar, V. D. Lale and V. C. Sonawane).
2. **Quiz on General Science** – The book contains 1100 science questions pertaining to themes like, human body, health and hygiene, plant and animals life, environment, energy and natural and man made substances (in association with S. C. Agarkar, V. D. Lale and V. C. Sonawane).
3. **Krutipradhan Vidnyan Adhyapan** - The first booklet in the series of Self Instructional Material in Secondary Science was brought out. It contains 30 biological science activities developed from experience in the earlier Ashram School programme. It provides concrete guidelines to the teachers to make experiments interesting, to ensure pupils participation and to discuss relevant content. In addition it provides examples of how dramatization, field visits and leisure time assignments may be used fruitfully. The booklet was chosen for the “**Best Instructional Material Award**” given by the Maharashtra Association of Secondary Teacher Educators and YCMOU (in association with S. C. Agarkar).
4. **Self Instructional Material (SIM):** A laboratory Manual contains more than 35 experiments. This is collaborative work with Maharashtra Prathamik Shikshan Parisad (MPSP), Mumbai and HBCSE. The guidance for developing SIM was given by experts from DEP-IGNOU.
5. **All About Microscope: History, Use and Care** (with Prof. Agarkar). In this book comprise 12 chapters emphasis is on effective utilization of microscope, basic concepts in microscopy, staining techniques, slide preparation and also history of microscope.
6. **Science Questions Bank for S.S.C** (with Agarkar S. C.) for Ashram School Project.

7. Orientation course for Teacher Educators in Science (January 27 - February 5, 1998) assisted Dr. S. C. Agarkar to produce this reports.
8. Orientation course for Ashram School Science Teachers, Nashik Region, manual. of notes (with Navale P.K.).
9. Orientation course for Ashram School Mathematics Teachers, Nashik Region, manual of notes (with Navale P.K.).
10. Laboratory Manual on Orientation Programme for Trained Graduate Teachers in Biology (December 1998).
11. **OER MODULE-** a) Classification of living world, b) Life processes, c) Introduction to biology, d) Quiz on biology, etc.
12. **Technical Report:** Health Project (B. S. Mahajan, Sugra Chunawala, N. D. Deshmukh and Shituat).
13. **M. Ed. dissertation:** The title of dissertation is “Evaluation of facilities available to science teachers in secondary schools”.
14. **M. Phil. dissertation:** The title of dissertation is “Development of a model for intrinsic evaluation of a school science textbook and application of the model to the Std. VIII textbook prescribed for statewide use by the Government of Maharashtra”.
15. **OER4S annual Report:** Three years project in collaboration with I-CONSENT & MKCL, funded by RGSTC.

II. Participation in Material Development-

1. CBSE – Sample Questions Booklet for Std. IX.
2. CBSE – Sample Questions Booklet for Std. X.
3. Kendriya Vidyalaya Science Activities Manual book for Std. V - VIII.

III. Editor/coeditor/Guest Editor:

1. **Samwad:** worked as co-editor & editor of these 13 journals.
2. **Charchaughni, February 2009**, issue. ‘Abhyas Kasa Karawa ani Pariksha Kashi Dyawi’ (How to do study and prepare for examination).

IV. Proceedings /Journal Articles

1. Deshmukh, N. D. and Agarkar, S. C., “*Students’ Perception on Cloning and Biotechnology: A study of Indian School Students*”. Proceedings of the CESA-2005 (The Fifth Comparative Education Society of Asia Biennial Conference 2005 on Education for World Peace: The Asian Context at UKM, Malaysia).

2. Deshmukh, N. D. and Garode A. M., “*Implementing Water Sanitation Hygiene Education: Promotion through School Educations*”. Proceedings of the First Peoples Education Congress 2005, Allahabad.
3. Deshmukh, N. D. and Sonawane V. C., “Need of Understanding Physics involved in Compound Microscope for its Effective Utilization at School Level”. Proceedings of the NTSC-2005(National Teachers Science Conference) at Mysore.
4. Deshmukh, N. D. and Garode A. M., “Role of Physical Science in Bioinstrumentation and Techniques in Study of Glamorous Subjects: Microbiology, Biochemistry & Health Care”. Proceedings of the NTSC-2005(National Teachers Science Conference) at Mysore.
5. Deshmukh, N. D. and Agarkar, S. C., ‘Study of Students’ Ideas about Nature’. Proceedings of the CASTME International conference at Nicosia, Cyprus from April 15 to 18, 2004, page 191 –203.
6. Deshmukh, N. D. and Agarkar, S. C., ‘Organizing Teachers’ Workshops for Effective Utilization of Microscope’. *Vetri Education*, Vol. 1, Number 1, July 2006. Page 23-28.
7. Deshmukh, N. D. and Agarkar, S. C., A survey of Teachers Perception on New Science and Technology Textbooks (written with Dr. S. C. Agarkar), *Vetri Education*, Vol. 1, Number 2, October 2006 . Page 17-24.
8. Deshmukh, N. D. 'Students’ Misconceptions and Cultural beliefs in Biology at the Secondary School Level'. *Vetri Education*. January 2011.
9. Deshmukh, N. D. and Deshmukh V. M. 'Development & Evaluation of Remedial Material to Rectify Students' Misconceptions in Biology at Secondary School Level'. *Science Education in Future: A bulletin published on Golden Jubilee year of K. J. Somaiya College of Science & Commerce, Mumbai*. Page 11- 19, January 2011.
10. Deshmukh, N. D. and Agarkar, S. C., “How do teachers in Ashram schools perceive science curriculum at upper primary satge?”, “*School Science*” Vol. XL No. 3, *September 2002 (68 -81)*.
11. Deshmukh, N. D. ‘DNA Fingerprinting: A Milestone in Criminology’, *School Science*, Vol. XLI No. 4, December 2003(Published in November 2004). Page 17 -22.
12. Narendra D. Deshmukh and Veena M. Deshmukh, Poster titled “A Study of Students’ Misconceptions in Biology at the Secondary School Level”, at HBCSE, epi-STEME-2.

V. AIR Programme:

1. Participated in the script writing on the problem of Education and traffic in 2000 AD. workshop conducted by AIR, SIET and HBCSE.
2. **Radio programme:** Interview under Ananddai Palkatva – Various competitive examinations for students and role of the parents, All India Radio (Asmita Vahani), January 24, 2008.

Conferences, Seminars and Workshops:

a. Paper Presentation in International/National Conferences/Seminars:

1. **RIE Bhopal Conference (1998):** organized by NCERT, Delhi at RIE, Bhopal & presented the paper on "*A study of needs and requirements of practicing science teachers in municipal primary schools*"(with S. C. Agarkar).
2. **RIE Bhopal Conference (1999):** organized by NCERT, Delhi at RIE, Bhopal & presented the paper on "*Strategy for In-Service Teacher Training in Mathematics for Ashram Schools*" (with A.T.Mavalankar, K.Subramaniam, H.C.Pradhan).
3. **ICSTME (2001):** The HBCSE, UNESCO and CASTME jointly organized the ICSTME 2001 at Panaji, Goa, on February 20– 23, 2001. Paper presented on "*Capacity Building in Ashram Schools*" (with S. C. Agarkar, V. D. Lale, V.C. Sonavane).
4. **National Conference on Scientific Temper, Bhopal (2003) :** participated in a conference organized by Ministry of Science and Technology, New Delhi at Barkatullah University, Bhopal from 9 – 12 September, 2003 and presented a paper on "*Activity Based Science Teaching Programme to Develop Scientific Temper among Destitute Children*", (with S. C. Agarkar).
5. **National Seminar on Innovation in Classroom Instructions, CASE, Vadodara (2004):** participated in a national seminar on "Innovation in classroom Instructions" organized by Centre of Advanced study in Education, at M. S. University of Baroda, Vadodara from 19 – 20 January, 2004 and presented the paper on "*Organizing a Teachers' Workshop for Effective Utilization of Microscope*", (with S. C. Agarkar).
6. **Cyprus-CASTME International Conference (2004):** participated in an International conference organized by CASTME in collaboration with Inter College and Cyprus Mathematics Society, at Inter College Nicosia, Cyprus in April 2004. The theme of the conference was "Linking Science, Mathematics and Technology Education and Their Relevance. Presented a paper on "*Study of Students Ideas about Nature*", (with S. C. Agarkar).
7. **National Teacher's Science Conference (2004):** participated in "National Teacher's Science Conference – 2004" on "School in the service of Society" from September 09-13, 2004 at Ujjain, MP and presented a paper on "*Study of Students' Perception about Cloning and Biotechnology*"(with S. C. Agarkar).
8. **Regional Seminar at RIE, Bhopal (2005):** participated in Regional seminar on Review of National Curriculum Frameworks organised by the RIE Bhopal from February 15 – 16, 2005 and presented the paper on "*A Survey of Teachers' Perception on New Science & Technology Textbooks*" (with S. C. Agarkar).
9. **First Peoples Education Congress (2005):** participated in the First Peoples Education Congress on Social Communication from September 15 -17, 2005 at University of Allahabad and presented a paper on "*Implementing Water a Sanitation Hygiene Education: Promotion through School Educations*" (with Garode A. M.).
10. **Malaysia-CESA Conference (2005):** attended the 5th COMPARATIVE EDUCATION SOCIETY OF ASIA Biennial Conference 2005 organised by

Comparative Education Society of Asia (CESA) and University Kebangsaan Malaysia on “Education for World Peace” at University Kebangsaan Malaysia, Bangi, Selangor, Malaysia, from 30th & 31st May 2005. Presented a paper on “*Students’ Perception on Cloning and Biotechnology: A study of Indian School Students*” (with Dr. S. C. Agarkar).

11. **RIE Mysore Conference (2005):** participated in “Third National Teachers Science Conference – 2005” on “School in the service of Society” from September 09-13, 2004 at Regional Institute of Education, Mysore. Presented paper on “*Role of Physical Science in Bioinstrumentation and Techniques in Study of Glamorous Subjects: Microbiology, Biochemistry & Health Care*” (with A. S. Garode).
12. **National Council for Science & Technology Communication (2006):** Indian Science Writers’ Association (ISWA) and Gujarat Council of Science City (GCSC) organized 6th National Science Communication Congress (NSCC-2006) on ‘Public Understanding of Scientific Research (PUSR)’ from December 11-15, 2006 at Science City, Ahmedabad. Presented a paper on “*A Science Club Activities in School: PUSR*”.
13. **AIAER Conference (2007):** participated in XXI National Conference of All India Association for Educational Research (AIAER) on 'Researches for Quality Education' organized by and at Department of Education, Shivaji University, Kolhapur on 29th to 31st January 2007. Presented a paper on “*An Analysis of Students’ Misconceptions in Biology at School Level*”.
14. **AIAER International Conference at Pala (2007):** participated in International Conference on ‘Educational Research and Learning Beyond Cognition’ at St. Thomas College of Teacher Education, Pala, Kerala from May 31 – June 2, 2007 organised by AIAER. Presented paper on “*A Programme for Developing Open Educational Resources for Schools*”.
15. **National Conference in Science Education (2007):** Atomic Energy Education Society organised National Conference on Science Education under National Initiative in Science Education (NISE), Mumbai, on December 11-15, 2007 at BARC Hall, Mumbai. Presented a paper on “*A Study of Students’ and Teachers Misconceptions in Biology at School Level*”.
16. **National Seminar on Contemporary Research (2007):** the Department of Education, University of Calcutta organized National Seminar on ‘Contemporary Research Education’ from December 5-6, 2007. Presented a paper on ‘*An Analysis of Students’ and Teachers Misconceptions in Biology at School Level*’.
17. **IIE Seminar (2007):** participated in a seminar on ‘Quality School Education for All’ organized on November 16-17, 2007 at Indian Institute of Education, Pune. Presented two papers, one on “*Darjedar Mukta Shikshan Stroat*’ and second on ‘*Upper Primary level Teachers’ and Students’ Misconceptions*’.
18. **MSTSEA Conference (2007):** I participated in a Maharashtra State Secondary Teacher Educator’s Association Conference at Smt. K.N. Navale College of

Education and Training, Kusgaon, Lonavala from December 22-23, 2007. Presented a paper on “*Students’ Alternative ideas in Biology*”. During this annual convention and received the “Best Instructional Material Award” for book ‘Krutipradhan Vidnyan Adhyapan: Biological Science’.

19. **London - PCF5 (2008):** the Fifth Pan-Commonwealth Forum on Open Learning’ held at University of London, UK on July 13-17, 2008. The theme of this conference was ‘Access to Learning for Development’. Presented a paper on “*Resource Based Quality School Education*” (with Dr. S. C. Agarkar).
20. **SSA National Seminar at Chandigadh (2008):** participated in National Seminar of Sarva Shiksha Abhiyan held at Hotel Mountview, Chandigadh on November 24 – 26, 2008. MHRD has organised this three day seminar to take review of the SSA programme conducted in all States of India. State Project Directors, Education Officers, Programme Coordinators and Experts from various institutes were participated in this seminar. Presented “*HBCSE teacher training programme strategies, nature and philosophy*” and demonstrated various low cost experiments.
21. **Vetri Seminar (2008):** presented paper on ‘*Constructivism and misconceptions*’ Vetri Education, Puddycheri on February 16-17, 2008.
22. **YCMOU Seminar (2008):** participated in the State level seminar organised by YCMOU, Nashik on ‘Psychology: Education colleges Syllabus’ on March 10-12, 2008. Presented a paper on ‘*Paryayi Sankalpna (Alternative Concepts)*’.
23. **AIAER Seminar at Kalyan (2008):** participated in seminar on ‘Quality Education’ at Gurukripa College of Education, Kalyan, from April 26 – 27, 2008 organised by All India Association for Educational Research AIAER. Presented paper on “*A Programme for Developing Open Educational Resources for Schools*”. It provided me the platform to share ideas about OER4S project.
24. **Greece - IAIE Conference (2009):** International Association for Intercultural Education Annual Conference, on ‘INTERCULTURAL EDUCATION’ at Paideia, Polity, Demoi, Athens, from June 22nd to June 26th 2009. Presented paper ‘*A Study of Students’ and Teachers’ Misconceptions in Biology at the Secondary School Level*’.
25. **People Education Congress (2009):** Peoples Council of Education has organized Second Peoples Education Congress on ‘Science Education in India’ from October 05-08, 2009 at HBCSE, Mumbai. Presented paper on ‘*Development of Learning Objects: Opportunities and Challenges*’
26. **KKCE Seminar (2009):** participated in the K. K. College of Education, Juhu, seminar on ‘Online Learning’ on March 06-07, 2009. Presented paper on ‘*Development of OER: Opportunities and challenges*’.
27. **Singapore - Asian Association for Biology Education Conference (2010):** 23rd Biennial Conference of the Asian Association for Biology Education on ‘Biology Education for Social and Sustainable Development’ was held at National Institute of

Education, Nanyang Technological University, Singapore, from October 18 – 20, 2010. Presented paper on '*Designing and Field Testing of Remedial Material to Rectify Students' Misconceptions in Biology at the Secondary School Level*'.

28. **PCF6 Kochi (2010):** the Sixth Pan Commonwealth Forum jointly organized by the Commonwealth of Learning (COL) and Indira Gandhi National Open University (IGNOU), on Open Learning (PCF6) was held at Kochi, Kerala, from 24-28 November 2010. The theme of PCF6 was 'Access and Success in Learning: Global Development Perspectives'. Presented a paper based on OER4S Project, entitled "*Development of Open Educational Resources Opportunities and Challenges*" (with S. C. Agarkar).
29. **HBCSE-ARM (2010):** a local event focusing on the work of Ph.D. students at HBCSE, this year the ARM was held during February 11 – 12, 2010. Presented a paper on "*A study of students' misconceptions in biology at school level and development of research based remedial material: Cultural Aspect*".
30. **KKCE Seminar (2010):** participated in the Smt. Kapila Khandvala College of Education, Juhu, Mumbai, UGC Sponsored National Level Seminar-cum-Workshop on 'E-learning for continuing professional education' on April 08-09, 2010. Presented a paper on '*Use of Confluence for Development of RLOs for OER4S project*'.

b. Participation in International/National Conferences/Seminars:

1. **National conference for Science writers (1996):** participated in the National conference for Science writers organised by Marathi Vidnyan Parishad.
2. **Somaiya College conference (1996):** participated in organised by on "New Frontier in Educational Technology'
3. **Kolhapur Conference (1997):** organized jointly by Shivaji University Kolhapur, UNICEF Mumbai & Srujan Anand Shikshan Kendra Kolhapur on "Development in Primary Education: Alternative Strategies".
4. **MVP Conference (1998):** participated in a conference organized by Marathi Vidnyan Parishad, Mumbai on "Science Writers : Science Popularization".
5. **International conference for Science Communicators (1999):** organized by Marathi Vidnyan Parishad.
6. **National Science Congress Pune (2000):** participated and demonstrated experiments to visitors and supervised the programme (January 3 -7, 2000).
7. **International Conference on Science Communicators, Mumbai (2003):** participated in an International conference for Science Communicators organized by NCSC, Marathi Vidnyan Parishad at Mumbai from 20 -22 June, 2003.

8. **Seminars on Advances in Molecular Biology, Vashi (2003):** participated in one-day state level seminar on “Advances in Molecular Biology” organized by Modern college, Vashi on 30 March, 2003.
9. **Seminar on Intellectual Property Right, Akola (2004):** participated in state level seminar on “Intellectual Property Right” organized by Government B. Ed. College, Akola on 23 – 24 January, 2004.
10. **epiSTEME -1 (2004):** participated in epiSTEME-1, International conference to review research in science, technology and mathematics education held at International Centre, Goa, in December 13-17, 2004 organized by HBCSE.
11. **National Focus Group Workshop (2005):** participated in meeting of National Focus group on “Teaching of Science” on February 1 and 2, 2005 at HBCSE.
12. **TISS – IIE Seminar (2006):** School of Social Work, Tata Institute of Social Science, Deonar organized a two day seminar from October 10 -11, 2006 at Indian Institute of Education, Pune on “Adivasi Children School Education and Role of various Institutes”.
13. **International Conference on Science Communicators(2006):** participated in the National conference on ‘Vision 2026 – Challenges in Science Communication’ for Science Communicators organized by National Centre for Science Communicators (NCSC), Marathi Vidnyan Parishad at Indian National Science Academy, Bahadur Shah Zafar Marg, New Delhi, from 26 -28 November, 2006.
14. **Mumbai University Seminar (2007):** participated in a one day seminar on ‘Science and Society’ held at Mumbai University on January 22, 2007.
15. **National Conference on Science Communicators, Mumbai (2007):** participated in the National Conference on Science Education: HBCSE organized jointly with Marathi Vidnyan Parishad, Mumbai The theme was ‘Science Education – Challenges of Quality’.
16. **epiSTEME-3 (2009):** the Third International conference to review research in science, technology and mathematics education i.e. epiSTEME-2 was held in HBCSE, Mumbai from January 05 – 09, 2009.
17. **National Conference on Science Communicators (2008):** participated in the ‘National Conference on “National Agenda on some Problems & Solutions” for Science Communicators organized by National Centre for Science Communicators (NCSC), Marathi Vidnyan Parishad at Auditorium of the Indian
18. **National Teachers’ Science Congress (2009):** The NCSTC-Network, RVSP-DST and Regional Institute of Education, Bhubaneswar has organised ‘V National Teachers’ Science congress at RIE, Bhubaneswar on October 1-4, 2009. Invited as ‘member of evaluation team’ to review the papers presented by the participants.

19. **Western Regional Orientation Meet (2009):** the RVPSP-DST has organised western regional orientation meet for the State/District Academic Coordinators and evaluators on improving overall Quality of National Children's Science Congress at Gujarat Science City from October 22 – 24, 2009. Presented the status of Mumbai Chapter and shared experiences of NCSC activities conducted by Mumbai chapter.
20. **Vigyan Vividha (2009):** organised Vigyan Vividha 2009, a festival of science and technology from 12 to 14 November, 2009 at HBCSE.
21. **Pancham (2009):** Zenith School, Vadodara has organised inter school science quiz competition on the occasion of Pancham 2009. Prepared the written Question paper for preliminary round as well as for oral round and played the role of Quiz Master and conducted 'Science Quiz Competition' on December 11, 2009.
22. **Pune e-B. Ed. Seminar (2010):** YCMOU, MKCL and I-CONSENT organized three day seminar on 'Researching and Evaluating the I-CONSENT e-B. Ed. Program' at IIE, Pune on November 18 -20, 2010.
23. **Asian Science Camp (2010):** ASC was held on August 17-21, 2010 and took the responsibility of coordination of the volunteers' team for ASC.
24. **ICEC (2010):** International Conference on Education in Chemistry -2010 was organized at HBCSE on November 12 - 14, 2010 and worked as repertoire for review.

c. Workshops:

1. **International Workshop (1999): on " History of Science: Implications for Science Education"** organized by HBCSE.
2. **Workshop organized by Bal Vividha (2000):** celebrating alternative approaches to learning on 18 – 21 November, 2000 at Bal Bhvan, Mumbai.
3. **Workshop on "Teachers Scientist Meet - VII" (2002):** organized by MVP and BARC, 27 – 28 July, 2000 at Marathi Vidnyan Bhavan, Mumbai.
4. **National Orientation Workshop, Guwahatti (2007):** participated in the National Orientation Workshop on Microorganism: 'Let us observe and learn' held at the Department of Botany, Cotton College, Guwahatti during May 3-5, 2007 as a State Resource Person.
5. **C-DAC workshop (2008):** participated in a two day workshop on 'Demystifying e-Learning' held at Centre for development of Advanced Computing, Kharghar, Navi Mumbai from January 5-6, 2008.
6. **C-DAC Workshop (2008):** attended two workshops organised by Centre for development of Advanced Computing, Kharghar, Navi Mumbai on 'e-learning' (June 21-22, 2008) and on 'Rule based Expert System' (October 17-18, 2008).

d. Annual Convention:

1. **Annual Convention of MVP, Dadar (1995):** participated in the Bal Vidnyan Melava & demonstrated the experiments on bacteria and showed disease slides.
2. **Annual Convention of MVP, Thane (2003):** participated in a 38 Annual Convention of Marathi Vidnyan Parishad held at Thane from 19 – 21 December, 2003.
3. **Annual Convention-IABT (2006):** Indian Association of Teachers in Biological Sciences organized a seminar on ‘Recent trends in Biological Sciences’, on February 11, 2006.
4. **Annual Convention of MVP (2006):** participated in the 41st Annual Convention of Marathi Vidnyan Parishad held at Wani, Yavatmal from 16-18 December, 2006.
5. **Annual Convention- IABTS (2009):** Indian Association of Teachers in Biological Sciences organized a seminar on May 02-03, 2009 on ‘New challenges in Biological Sciences’.

HBCSE Projects/Teachers Training/Talent Nurture:

Worked as a resource person in several Training programs/Orientation courses/ Refresher Courses/Personality development camps for teachers, lecturers, students and for workers by the following Institutions /Organizations-

1. Participated in Remedial Programme for Secondary Schools in Tribal Regions of Dahanu Region (1991 – 92). Helped in data collection and data analysis.
2. Participated as a Resource person for Comprehensive Quality Programme for Primary and Middle Schools in the city of Solapur (1991 – 94). Conducted Orientation Courses, Laboratory sessions, Enrichment sessions and School visits.
3. Participated as a Resource person for Rankol Project for primary teachers (1993-94).
4. Coordinated Bal Vidnyan Manch Programme for students of V Std. from the school of children’s Aid Education Society (1993 -95).
5. Participated in AEES-HBCSE Collaborative Programme (1994-98) and carried out orientation courses, laboratory sessions.
6. Participated as a Resource Person in Quality Improvement Programme for Ashram Schools in the regions of Thane, Pune and Raigad Tribal Blocks (1994 – 97). Organised Orientation Courses, Laboratory sessions, Enrichment sessions, meetings and School visits.
7. Participated in Health Education Programme (HEP) conducted by HBCSE (1995-97).
8. Participated in AEES Post Graduate Teachers Orientation Programme (1996).
9. Participated as a Resource Person & Co-ordinated Orientation Programmes in Quality Improvement Programme for Ashram Schools in the regions of Nasik, Dhule and Nandurbar Blocks (1997 – 99).
10. Participation in Talent Nurture Programme (1996-98), arranged at Manuguru, Jaduguda, Mumbai, Tarapur, Mysore (in collaboration with AEES), at Baroda, Kodaikanal, Jaipur, Mumbai (in Collaboration with Bharatiya Vidya Bhavan) and

at Lonere (in collaboration with Dr. Ambedkar Technological University) and at Chinmaya Vidyalaya Tarapur (2004-10).

11. Participated in NCTE - HBCSE collaborative Training programme (1998 -2000).
12. AEES Community Development Project (2001-03), the community development project of the DAE.
13. BMC Project : PRISM (2000)
14. Teachers Training Programmes at Arunachal Pradesh: Under the programme of “Sarva Shiksha Abhiyan” Department of Education, Arunachal Pradesh (2006).
15. MPSP District Level Master Trainers Training Programmes at Pune and Nagpur: Under the programme of “Sarva Shiksha Abhiyan” Maharashtra Prathamik Shikshan Parishad, Jawahar Balbhavan, organised science teachers training programmes for all District Level Master Trainers (2008).
16. Orientation Course for Teacher Educators in Science- Faculty of DIETS in Madhya Pradesh (2010).
17. Working as Course developers/mentor/member for e-B.Ed programme-YCMOU(2007-11)
18. Coordinating - Development of Open Educational resources for Schools Project (2007-2011)
19. Working as editing committee member/writer in Kumar Vishvakosh-Jeevshrushti and Paryawaran Encyclopedia in Marathi (2006-2011).
20. Working as Organizer/Course developers/member for D.El.Ed – NIOS programme (2011).

Short Duration Programme: took initiative and conducted following teacher training workshops, enrichment programme and lecture cum demonstration sessions.

1. HBCSE-GBSTA Science Teacher Programme (1994-95).
2. BMC-Primary Teachers Orientation Courses (1995-99).
3. Junnar Teacher Training Programme (1995)
4. Earthquake affected Latur-Umerga Primary Science Teacher Training Project (1995-96)
5. Awarpur Science Teacher training Programme (1996-97):
6. Low-Cost instrumentations course for Junior College Teachers (1998).
7. Course for Srujan Anand Shikshan Kendra’s Primary Teachers (1998)
8. Maharashtra Science Teachers Association programme (1999)
9. IWSA- HBCSE collaborative workshop (1999).
10. Jindal - Washind Talent Nurture Programme (1999).
11. Vikram Ispat - Salav Talent Nurture programme (1999):
12. Tala Talent Nurture programme (2000):
13. Tarapur Science / Mathematics Teachers Course (2000):
14. Workshops for Ashram School Teacher: Nashik, Nandurbar, Chimbipada and Bhinar (2002).
15. M.V.P Science Teachers Workshop (2002).
16. Tarapur Science Teachers’ Association Programme (2001-02)-
17. Workshops for Primary Teachers’ Workshops (2001-02): KDMC, Dombivali (2001).
18. Workshop at Tarapur: Homi Bhabha Vidyalaya Tarapur 92002).
19. Workshop for Ashram schools Teachers: Ashram Schools at Akola regions (2003).
20. Workshop for rural schools Teachers in Kolhapur district: MVP, Gadhinglaj (2003).
21. Workshop for Municipal Schools in Rajkot: Science Community Centre, Rajkot (2003).

22. WIPRO Course (2003): Science Teachers from Karnataka State.
23. Workshop for Upper Primary Teachers: Bharat Sevashram Sangha Jamshedpur (2004).
24. Workshop at Tarapur: Chinmaya Vidyalaya Tarapur (2005).
25. Workshop at Madurai: Mahatma Montessori Matriculation School, Madurai (2005).
26. Workshop at Vadeshwar: The Tribal Department (2005).
27. Workshop at Rajmundry: Sun School Vishakhapatnam and Sri Gowthami Public School, Rajmundry organized a workshop (2006).
28. Door Step School Programme-(2004-07): Door Step Organization for BMC schools students
29. Workshop at Madurai: Mahatma Montessori Matriculation School, Madurai(2006).
30. TISS Navachetana Project: Department of Social Study, TISS (2006).
31. Workshop at Rajkot: Rajkot Science Centre, Rajkot (2006).
32. Workshop at Aheri, Gadchiroli: Tribal Project Office, Aheri, Dist. Gadchiroli (2008).
33. Workshop at Ghatkopar: Shantilal Sanghavi Foundation, Ghatkopar (2007).
34. Workshop at Gadhinglaj: Marathi Vidnyan Parishad Gadhinglaj(2007).
35. Workshop at Wani: Marathi Vidnyan Parishad, Wani (2007).
36. Workshop at Parinche: Foundation for Research in Community Health, Parinche, Purandhar, Pune (2008).
37. Workshop at Kolhapur: Mahavir English School, Kolhapur (2008).
38. Workshop at Khamgaon: Buldhana District Science Teachers Association (2009).
39. Workshop at Atapadi, Sangali: Atapadi Education Society and Maharashtra Science teacher Association (2010).
40. Workshop at Gadhinglaj: Gadhingaj Science Teacher Association and Marathi Vidnyan Parishad (2009).
41. Workshop at Virar: National English School – ICSE, Manvelpada, Virar(2009).
42. State Level Children Science Congress Seminar: Sahakar Vidyalaya, Buldhana (2010).

Popular Science Articles

1. Jaiveek Bahoovidhata – Ek Jwalant Prashna (Bio-Diversity: One Burning Problem) Vidnyanyug, September 1992 (Page No. 10-14).
2. Maharashtraateel Deshtargat Matsyodyog (Freshwater Fisheries in Maharashtra) Vidnyanyug, February 1993 (Page No. 48-56).
3. Ghodamasa (Hippocampus) – a. Vidnyanyug, June 1996, (page 22-24). b. Patrika, May 1996, (page 34-35).
4. Vidnyan Shikshan (Science Education) – Jivan Shikshan September 1996 (page 3-5).
5. Sajeev: Adhivas ani Anukulan (Living: Habitat and Adaptation) – Shikshansankraman, December 1996, (page 17-18).
6. Sap Ek Upayukta Prani (Snake: Useful Animal) – Patrika November 1996, (Page 35-36).
7. Samaj Priya Madhamashi (Social Behaviour of Honey-bee), Vidnyanyug, January 1997, (Page 29-31)
8. Thor Shastradnya ani Thyanche Shodh (Great Scientist and Their discoveries) – Shikshansankraman, January 1997, (Page 17).
9. Prayogatun Vidnyan Shikshan (Science through experiments), Jeevanshikshan, October 98 and Shikshansankraman, November 98.

10. Jivashma: Nisargatil Gupit (Fossils), Vidnyanvichar, November 98.
11. Doodh: Sarvotkrushta Ahar (Milk: Nutritious Food), Vidnyanvichar, November 98, MVP Patrika, March 98, Vidnyanyug, May 98, and Arogya Patrika, December 98.
12. Shaikshneek Pradarshane (Science Exhibition), Shikshansankraman, December 98 and Vidnyan Darpan 98-99.
13. Anukulan (Adaptation), Shikshansankraman, June 98.
14. Vidnyan Tantradnyan - Vidnyan Shikshan (Science technology-Science Education), Shikshansankraman, February 99 and Jijao 98-99.
15. Vidnyan Adhyapan - Apalya Sabhovati (Science teaching and Our Environment), Jeevanshikshan, October 98.
16. Besumar Loksankhya (Growing Population), Shikshansankraman, February 99.
17. Vidnyan Pradarshan (Science Exhibition) in Marathi, (a) Jeevan Shikshan, January 2000, (b) Shikshan Sankraman, February 2000.
18. Vidnyan shikshanatil Navpravaha (New approach in Science Education) in Marathi,, Pratibimba,,1999-2000.
19. Vidnyan Pradarshane - Vidyarthyanchya Vikasatil Ek Mahatavacha Tappa (Science Exhibition - Important activity for students) , in Marathi , (a) Jeevan Shikshan, January 2000, (b) Sakal news paper 17 January 2000.
20. "Ek Sarvekshan" (A Survey), in Marathi , Shikshan Samiksha, August-September, 1999.
21. Shalaya Vidyarthansathi spardha pariksha (Talent Examinations for students) in Marathi , Sakal news paper 17 .7. 99.
22. Vidnyan Tantradnyan - Vidnyan Shikshan (Science & Technology - Science Education) , in Marathi , (a) Shikshan, Sankraman , March 1999. (b) Jivan Shikshan, November 1999.
23. Homi Bhabha, in Marathi , Shikshan, Sankraman , May 1999.
24. Jagav 2000 ani Aapan (World Mathematics Year 2000) in Marathi, Sakal, December 2000.
25. Vidnyan Pradarshane - Vidyarthyanchya Vikasatil Ek Mahatavacha Tappa (Science Exhibition - Important activity for students), in Marathi, Sakal, 1 January 2001.
26. "Sap Ek Mitra" (Snake - a friend), in Marathi, Sakal.
27. Vidnyan Pradarshane (Science Exhibition), in Marathi, Shikshan Sankraman, March 2000.
28. Olympiad Spardha Pariksha – 2001 (Olympiad Examination-2001) in Marathi, (a) Vidnyanyug, September 2001, Page 3-10, (b) Shikshan Sankraman, February 2002, page 7-9, (c) Vidnyan Darpan (2001-2002), page 28-31, (d) Nav Shakti, daily newspaper, dated 10/7/2001.
29. Kuntoomb Niyojan (Family Planning) in Marathi, Maharashtra Arogya Patrika, August 2001, Page 30-33.
30. Vasundhara Din- Vastav ani Apeksha (Earth Day) in Marathi, Vidnyanyug, June 2001, Page 37-42.
31. Maharashtra Vidnyanacha Prasar Hawa (Need of Science Popularization in Maharashtra) in Marathi, Vidnyanyug, July 2001, Page 52-54.
32. Shalay Vidhyarthnyasathi spardha pariksha (Competitive Science examination) in Marathi, Vidhyarthi Manch, January 2002.
33. Vidnyan Pradarshane (Science Exhibition), in Marathi, Jeevan Shikshan, January 2002.
34. Olympiad Spardha Parikshamadhil Shikshakanchi Bhoomika (Teachers' role in Olympiad Examination), (a) Tejas 2002, Page 37-41, (b) Poornasatya, daily Newspaper, December 07, 2002.

35. Mahatva Sushmadarshkache (Importance of Microscope with K. T. Hambir), Shikshan Sankraman, September 2002, Page 24-27.
36. Vasundhara Din- Ani Apan (Earth Day and Us), Shikshan Sankraman, April 2002, Page 3-6.
37. Vidnyan Pradarshane: Anand Mela (Science Exhibition with V. D. Lale), Deshonmati, December 5, 2002.
38. Adivashi Vidyarathyanche Shikshan (Tribal Education with K. T. Hambir), (a) Shikshan Sankraman, February 2003, Page 23-27, (b) Bharatia Shikshan, February 2003, Page 35 - 37.
39. Olympiad Spardha Pariksha: Shikshakanchi Bhoomika (Olympiad Examination-Teacher Role) in Marathi, Bharatiya Shikshan, May 2003, page 38 - 42.
40. Vasundhara Din (Earth Day) in Marathi, Shikshan Sankraman, April 2003, Page 03 - 06.
41. Shalay Vidhyarnthyasathi Spardha Pariksha (Competitive Science Examination) in Marathi, (a) Shikshan Sankraman, July 2003, page 17 – 20.
42. Vidnyan Pradarshane (Science Exhibition), in Marathi, Pratibimba, January 2004.
43. Shikshak Din (Teacher Day), in Marathi, (a) Bhartiya Shikshan, September 2003, Page 08 -10, (b) Shikshan Sankraman, September 2003, page 07.
44. Adivashi Vidyarthyanche Shikshan (Tribal Students Education) in Marathi, (a) Shikshan Sankraman, February 2003, Page 23 - 27 (b) Tribal Research Bulletin, Vol. XXV No 1 & 2, page 60 – 64.
45. Bal Vidnyan Manch (CAS: Activity Based Programme) in Marathi, Bharatiya Shikshan, December 2003, page 30 - 35.
46. Vaidnyanik Drustikon – Vidnyan Parishad 2003 (Scientific Temper – Science Conference 2003) in Marathi, Bharatiya Shikshan, January 2004, page 25 - 27.
47. Vidnyan Pradarshane: Ek samwad (Science Exhibition), Shikshansamasya, February 04.
48. National Science Day (in Marathi) published in Shikshan Samasya, February 2005. Page 9-10.
49. Olympiad Spardha Parikshamadhil Shikshakanchi Bhoomika (Role of teachers in Olympiad Examination) in Marathi, Shikshan Samasya, January 2005. Page 4 -7.
50. Series of articles on (a) Sadar Shikshakanche- Teachers Questions (b) Sadar Vidyarthyanche-Competitive Science Examination in Mitra 1 to 12. (Bulletin Published by Acworth Leprosy Hospital society, Wadala).
51. Ganitache Pratimane (Mathematical Models) in Marathi, Sakal, September 07, 2005.
52. Shikshak ani sola sutra (16 Rules for Teachers) in Marathi, Shikshan Sankraman, October 2005, Page 21 – 23.
53. Pani: Ek Jwalant Samasya (Water a burning issue) in Marathi, Nisargvedh, May 2005, page 13 – 16.
54. Dream City: New Mumbai in Navi Mumbai Times, May 2005.
55. Vidnyan Pradarshane: Anand Mela (Science Exhibition), in Marathi, Shikshan Samasya, Page 20-21, May 2005.
56. Vidnyan Shikshan (Science Education) in Marathi, Chala Shikuya, MPSP Journal, January 2006.
57. Arogya: Prashna tumache-Uttar Amache, Mitra (Issue No 1 – 12), 2005 – 2006.
58. Apale Paryawaran, Mitra (Issue No 1 – 12), 2005 – 2006.
59. Shalay Vidhyarnthyasathi Spardha Pariksha (Competitive Science Examination) in Marathi, Shikshan Samasya, February 2005. Page 19 -21.
60. Olympiad Spardha: 2006 (Olympiad Examination: 2006) in Marathi, Lokmat, May 22, 2006.

61. Shalay Vidhyarthiyasathi Spardha Pariksha (Competitive Science Examination), Mitra, 2006.
62. Darjedar Mukta Shikshan Stroat (Open Educational Resources), in Marathi, *Jeevan Shikshan*, December 2008.
63. Vidyarthyanchya Kahi Gairsamjuti (Students misconceptions) in Marathi, *Jeevan shikshan* , January 2008.
64. Vidnyanatil Vidyarthyanche Gairsamjuti ani shikshkanci bhoomika (Students misconceptions and teachers role) in Marathi, *Shikshan Sankraman*, March 2008.
65. Mukta Shikshan Stroat (Open Educational Resources), Amravati Dist. Science Teachers Association, souvenir, December 2008.
66. Vidnyan Pradarshan (Science Exhibition), State Level Science Exhibition, Chandrapur, souvenir, January 2009.
67. Bal Vidnyan Sammelan (Children's Science Exhibition), Vidnyan Yatri: 36th State Level Science Exhibition 2010 souvenir.
68. Jaivik Vividhata Aantarrashtriya varsh (Biodiversity International Year), State Level Children's Science Congress 2010 souvenir.

Popular Science Lectures/Demonstration

a. Special lectures:

1. Satviche Adhyanpan (Std. VII Science) at BMC Govandi School.
2. Prayog Vidnyan (Std. VIII Science through activity) at Swami Muktanand High school Chembur.
3. Bird Migration at HBCSE (D.Ed College Chembur).
4. Role of experimentation in science education, Thane District Science Exhibition-1996 at Bhayander.
5. Prayog Vidnyan (Std. VIII Science through activity) at K. D. Memorial High school Nalasopara.
6. Preparation for Bal Vaidnyanik examination at Virar (Vasai Science teachers Association).
7. Low-cost Experiments: Kits of Experiments, Payee High School, Jalamb (Buldhana), December 98.
8. Vidnyan Tantradnyan - Vidnyan Shikshan (Science technology - Science education), Z.P.High School, Khamgaon (Buldhana), December 98.
9. Vidnyan Prayog (Science Experiments), TISS, Deonar, May 98.
10. Innovative ideas in Science Exhibition, Nehru Planatorium, Mumbai, September, 1999.
11. Role of Headmasters, BMC, Kalyan, November 23, 1999.
12. Innovative Science Experiments, IWSA, Vashi , 18 July 99.
13. Role of Science Experiments, Gram Mangal Aine, July 19, 1999.
14. Fun - Science experiments, Salav, - November 15 -16 , 1999.
15. Some Innovative ideas in Science Exhibition, Nehru Science Centre, Mumbai, 3 July (English), 4 July (Marathi) and 5 July (Hindi), 2000.
16. Role of Science Exhibition, Shendi High School, Bhandardhara, Ahmadnagar, 4 December 2000.
17. Science Club and Science Day, Kumad Vidya Mandir, Deonar, 28 February 2000.
18. Innovative ideas in Science Exhibition, Nehru Science Centre, Mumbai, September, 2001.

19. How to participate in Science Exhibition, Nehru Science Centre, Mumbai, September, 2001.
20. How to collect resources materials for science exhibition Nehru Science Centre, Mumbai, September, 2001.
21. Innovative Science Experiments, R.V. Fanase Vidyalaya, Dombivali, June 26, 2001.
22. Role of Science Experiments, Bal Vikas Mandir, Dombivali, July 19, 2001.
23. Fun - Science experiments, Vatsalya Trust Sanpada, - November 11, 2001.
24. Vidnyan Prayog (Science Experiments), Vivekananda High school, Chembur, September 4, 2001.
25. Vidnyan Pradarshane Kalachi Garaj, District level Science Exhibition, Badalapur, Thane, January 3, 2001.
26. Low-cost Experiments: Kits of Experiments, Vikroli High School, Vikroli, December 2001.
27. How to collect resource materials for science exhibition Homi Bhabha High School, Tarapur, 30 November, 2002.
28. How to prepare students for Young Scientist Examination? Vasai School Vasai, 21 June 2002.
29. A Planet Alive, Divine High School, Andheri, December 04, 2002.
30. Role of Science Exhibition in Science Education, Kurla High School Kurla, December 06, 2002.
31. Yes, You Can Do It, Vittal Mandir Trust High school, Dadar, May 4, 2002.
32. Challenges in Science Exhibition, District level Science Exhibition, Adarsh Vidya Mandir Kulgaon, Thane, 11 January 2003.
33. How to demonstrate Science Experiments in classroom, N. G. Vartak English High School, Virar, 5 February 2003.
34. How to Develop Laboratory by Using Easily Available Things?, N. G. Vartak English Medium High School, Virar, 05 February, 2003.
35. Innovative Science Experiments, BMC school, Bhandup , 02 January, 2004.
36. Role of Science Experiments, S. V. High School, Dombivali, 09 December, 2003.
37. New Trends in Science Education, Shirodkar High School, Paral, 18 November, 2003.
38. Fun with Science Experiments, Brahman Sangh, Dadar, 28 April, 2003.
39. Effective Use of Microscope, MVP, Aurangabad, 15 November, 2003.
40. Biology Education, Homi Bhabha Vidyalaya, Tarapur, March 2003.
41. Activity Based Teaching in Science Education' on Jan. 4, 2005 at Anjuman Riyaz-ul-Islam High School, Govandi.
42. Science Experiments: Fun, at Children Home, Ulhasnagar, on May 13, 2004.
43. How to Develop Laboratory by Using Easily Available Things? Fanase Bal Mandir, Dombivali, on January 10, 2005.
44. Fun with Science Experiments, KDMC School, Kalyan, January 20, 2005.
45. Role of Industry in Rural Development, Samadia High School, Bhivandi, 07 January, 2006.
46. Landmarks in Science, Abhinav Vidyamandir, Bhayander, 06 December, 2005.
47. STS for Rural Development, Saraswati High School, Vaitarana, 30 November, 2005.
48. Science Exhibition and Science Experiments, Sheth Dhaji High School, Mulund, October, 2005.

49. Use of STS in Rural Development, Michael High School, Kurla, 13 December, 2005.
50. Effective Teaching of Science on March 7, 2005 at Digambar Patkar Vidyalaya, Dadar (E).
51. National science Day, Parle Tilak Vidyalaya, Vile Parle, on February 28, 2005.
52. Role of Science Quiz, Ratanbai Walbai BMC School, Mulund, on February 28, 2005.
53. Prepare Science Projects and action research, Nutan Vidyamandir, Mankhurd, on March 30, 2005.
54. National science Day, Parle Tilak Vidyalaya, Vile Parle, on February 28, 2005.
55. Role of Science Quiz, Ratanbai Walbai BMC School, Mulund, on February 28, 2005.
56. *Fun with Science Experiments*, organised by Marathi Vidnyan Parishad Ambernath, at Paranjape Vidyalaya, Kansai, Ambernath (East) Dist. Thane, 21, May 2007.
57. *Role of Science Experiments*, Nirmala Mata Girls High School, Vasai, Dist. Thane, 28 September, 2007.
58. *Science Exhibition: Scientific Awareness*, Mahatma Jyotiba Jr college and High School, Kinwat, dist. Nanded, 30 December 2007.
59. *New Trends in Science Education*, Seth Bansidhar Vidyalaya, Telhara Dist Akola, 9 January 2008.
60. *Science and Society*, Secret Heart High School, Varapgaon, Kalyan, Dist. Thane, 11 January 2008.
61. *Effective Use of Microscope*, Naik High School, Pusad Dist. Yavatmal, January 2008.
62. Understanding Some Basic Concepts from Science” at Kanchan High School, Nalasopara on January 04, 2009.
63. Innovative Science Experiments, Ashram school, Dhadgaon, Dist. Nandurbar, 09 February 2008.
64. Science Education and role of activities demonstration, Navapur high School, Dist. Nandurbar, 10 February 2008.
65. National Science Day, Savitribai Phule Kanya Vidyalaya, Belkhed, Dist Akola, 28 February, 2008.
66. Various Competitive Examination, Murbad English School, Murbad, January 17, 2009.
67. Importance of National Science Day” at Krantiveer Phadke Vidyalaya, Panvel on February 28, 2009.
68. ‘Science and Society”, Wyala High school, Wyala, Dist. Akola, July 20, 2009.
69. ‘Biology Education’, Payee High school Jalamb, Dist. Buldhana, July 21, 2009.
70. ‘Neosphere and Guidance’, Saki Naka School July 25, 2009.
71. ‘Sports and STS”- District Science Exhibition, New English school, Akola (November 16, 2009), Asegaonkar High school, Pusad (November 17, 2009) and Shivaji high school, chikhali (November 19, 2009).
72. ‘How to do Study of Various Competitive Examination’, Sarswati Vidyalaya, Pinjar, November 18, 2009.
73. ‘Alternatice concepts in science’, BMSTA one day seminar at HBCSE, January 13, 2010.
74. ”Science Education: Constructivism”, Kumud Vidya Mandir, Deonar, on June 12, 2010.

75. "How to prepare for Homi Bhabha Young Scientist Examination", at Horizon School, Khanda Colony on July 30, 2010.
76. "Teachers Day: Teachers Role", Gaondevi High School, Thakur Nagar, Dombivali, on September 04, 2010.
77. "INSPIRE Programme", New English School, Akola, on November 20, 2010.
78. "Biodiversity - District Science Exhibition", New English School, Akola, on November 21, 2010.
79. "Alternative concepts in science', State Level Children Science Congress seminar at Buldhana, on December 04 & 05, 2010.
80. "Role of Science Exhibition", Z. P. Girls High School, Khamgaon, on December 06, 2010.
81. "Talent Nurture Activities", St. Anthony High School, Versova, on December 09, 2010.
82. Prayog Vidnyan (Std. VIII Science through activity) at K. D. Memorial High school, Nalasopara.
83. Preparation for Bal Vaidnyanik examination at Virar (Vasai Science teachers Association).

b. Lecture cum demonstration workshops: Under Sarva Shiksha Abhiyan lecture cum demonstration workshops for students and teachers were conducted at following places-

1. Navjeevan Vidyalaya, Malad workshop for BMC teachers on January 07, 2005.
2. BMC School, Pawai, Kanjumarg workshop for teachers on January 10, 2005.
3. Swami Muktananda School, Chembur workshop for M ward teachers on January 24, 2005.
4. Phanse Primary School Dombivali workshop for KDMC teachers on January 29, 2005.
5. Kumud Vidyamandir, Deonar, workshop for M ward teachers from June 9 -11, 2004.
6. Nutan Vidya Mandir, Mankhurd workshop for L, M and F ward teachers on April 27, 2005.
7. Nehru Science Centre workshop for students on November 23, 2005.
8. Tilak Bal Vidya Mandir Dombivali workshop for teachers on 20 -21, December 2005.
9. Rel Child Primary School Dombivali workshop for teachers on January 18, 2006.
10. Patkar Vidyalaya Dadar workshop for teachers on March 11, 2005.
11. Activity Based Teaching' on February 17, 2005 at Nabar Guruji Vidyalaya, Dadar.
12. S.G Barve Academy, Dombivali workshop for tribal students on April 27, 2006.
13. Vatsalya Trust Sanpada, Navi Mumbai workshop for students on April 29, 2006.
14. Shantilal Sanghavi Foundation, Ghatkopar workshop for tribal teachers on August 30, 2006.
15. Nehru Centre, Nehru Planetarium, Warali, workshop for students on September 15, 2006.
16. S.G.K.M. International School, Ghatkopar workshop for students on January 12, 2007.
17. Parle Tilak High school, Vile Parle National Science Day workshop on February 28, 2006.
18. M. J. F. Vidyalaya and Jr. College Gokunda, Kinwat, Dist. Nanded on December 30, 2007.
19. Seth Bansidhar Vidyalaya and Jr. College Telhara, Dist. Akola on January 09, 2008.
20. Savitribai Phule High School, Belkhed, Telhara on February 28, 2008.

21. Muktagan Exploratory Pune, Summer Camp on June 31, 2008.
22. North Ward BMC on June 11, 2008 at Mumbai.
23. Union High School, Girgaon on September 02, 2008.
24. Marathi Vidnyan Parishad, Sion-Chunabhati on October 22, 2008.
25. Nehru Planetarium, Mumbai on December 05, 2008.
26. Creative English Medium School Gadhinglaj on January 06, 2009.
27. Gondia District Science Teachers Association, Gondia on January 25, 2009.
28. Raja Shivaji High School Dadar on January 31, 2009.

Networking with Various Organizations & Miscellaneous Work :

1. **Mitra programme:** From last nine years Mr. Navale & myself have been providing articles for Mitra every month in science education. This bulletin is published by Acworth Leprosy Hospital Society for Research, Rehabilitation and Education in Leprosy, Wadala, Mumbai and circulated in tribal schools.
2. **M. Ed Examiner:** Working as an examiner at the Viva of M. Ed students at University of Mumbai.
3. **NCTE – B. Ed. College Inspection:** participating in National Council for Teacher Education B. Ed colleges' inspection work.
4. **SSC Board Book Review:** participated in X Standard Science & Technology book review process.
5. **MVP Science Project Competition:** involved in Marathi Vidnyan Parishad (MVP) Programme from many years.
6. **Door Step School Programme:** conducted workshops, centered on activity based science teaching were organized in collaboration with the Door Step Organization for BMC schools.
7. **State Level & National Level Children Science Congress:** working as Academic Coordinator and as a experts, examiner.
8. **Observer for INO and NEST:** working as an Observer for the INO & NEST.
9. **Guide for Balbharati Action Research Project (2002),** - Mrs. Sandhya Chandanshive primary teacher from Nutan Vidyamandir, Mankhurd took the project on "Evaluation of Kishor magazine", under my guidance.
10. **Science Exhibition:** Prepared Seven Panels on "A Planet Alive' under the Kishor Bharati programme (2001).
11. Participation in Debate/Essay/ Other Competitions: Founders Day at TIFR and Hindi Divas.
12. **Literacy Project:** Participation in Literacy project, to educate illiterates in Mandala Colony (1993-1995).
13. **Paper Setting:** Participation in Paper Setting of Homi Bhabha Young Scientist Examination (2001-04): the question papers were produced in Marathi as well as English Language.
14. **Project Review:** Participated in Review of Learner Centered Science Education Programme, Gujarat (LCSEP): Ministry of Human Resource Development (MHRD) requested HBCSE to review LCSEP (2004).

15. **SCF-2010:** Participation in State Curriculum Framework (SCF-2010): in a Classroom Teaching-Learning group.

Association with Professional Organizations:

1. Life member of executive committee of All India Association for Educational Research and Joint Secretary of Maharashtra Association for Educational Research.
2. Life member of the Commonwealth Association of Science Technology and Mathematics Educators (CASTME).
3. Life member of the All India association of Environmental Science.
4. Life member of the Indian Science Writers Association.
5. Life member of the Maharashtra Association of Secondary Teacher Educators.
6. Life member of the All India Science Teachers Association.
7. Life member of the Indian Association of Teachers in Biological Sciences.
8. Life member of the Marathi Vidnyan Parishad, an organization for science popularisation.

References:

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