

BIO-DATA

General Information:

1. Name in Full : Dr. Chavan Balbhim Laxman
2. Date of Birth & Place : 19/10/1969 at Bolegaon, Tal. Tuljapur,
Distt. Osmanabad (M.S.)
3. Gender (Male/Female) : Male
4. Nationality : Indian
5. Language Known (Read and Write) : 4 (Marathi, Hindi, English &
Russian Language)
6. Marital Status : Married
7. Permanent Address : At. Post. Chungi, Tal. Akalkot,
Dist. Solapur, (M.S.) India
8. Resident Address : Dr. B.L. Chavan, Associate Professor,
T-9, Green Quarters, University Campus,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad- 431 004 (M.S.) India
9. Address for Communication : Dr. B.L. Chavan, Associate Professor,
Department of Environmental Science,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad- 431 004 (M.S.) India
10. E-mail address : drblchavan@yahoo.co.in
chavandrbl@rediffmail.com
11. Contact Number : 09881424586 (Mob.)
09156027909
12. Passport No. : H-28782 Dated : 26-05-1996
13. PAN No. : AGOPC7432L
14. Position on the last post served : Professor,
Department of Environmental Science,
School of Earth Sciences, Solapur University,
Solapur- 413255 (M.S.) India.
15. Present Employee of : Terminated Professor (Termination on 19th
Dec.2014)

Educational qualifications

1. Basic Educational Qualification : M.Sc. Ph.D. in Environmental Science (for
details please see Appendix-I)
2. Additional Educational Qualification : DEPC, CJMC, CRL, DRL, MS-CIT
(For detail please See Appendix-IA)
3. Special Educational Qualification : NET in Environmental Science
(June-2002)
4. Training Course attended : Attended Nine applied training course and
programmes in Environmental Science.
5. NSS, Scouts & Guides and NCC : 1) Completed Two Years of NSS
2) Passed B Certificate in NCC

3) Completed Three Years in Scout

Professional Experience in private sector: 4.5 years (1.5 yr. Env. Eng. + 3 yrs. Sr. Eng.) as Expert in Anaerobic digestion and other biological waste treatment processes.

Worked in 22 industries which include India Sugars, Pampasar Distilleries, Gujarat Ambuja Proteins Ltd., Himmat Nagar, Bharat Starch, Haryana, Dodla Dairy Nellore, Udaipur distillery Udaipur, S. G. Distillery, Ratlam and other industries related to United Breweries Shaw Wallace groups.

Extension Services as Consultancy:

Consultancy Services for Anaerobic digestion, plant erection, commissioning and monitoring services to the needful industries and research.

Positions held and work done:

1. Associate Professor: Presently working as Associate Professor in Environmental Science in continuation with the appointment from 15th May 2008 and subsequent rejoining (after lien for Professorship at Solapur) from 23th September 2015 in Dr. Babasaheb Ambedkar Marathwada University, Chh. Sambhajinagar.
2. Professor: Working as Professor in Environmental Science under School of Earth Sciences from 20th June 2012 in Solapur University, Solapur.
3. Associate Professor: Worked as Associate Professor in Environmental Science from 15th May 2008 to 19th June 2012 in Dr. Babasaheb Ambedkar Marathwada University.
4. Lecturer: Worked as Lecturer for PG in Environmental Science from academic year 2000-01 to 2006-07 in Shivaji University.
5. NSS Programme Officer: Worked as Programme Officer for PG NSS unit in years 2005-6 and 2006-07 in Shivaji University.
6. Sr. Environmental Engineer: Worked in ETP units of 22 industries for GETP consultancy to cure major problems.
7. Coordinator: Coordinated various activities, conducted workshops, training programs, the evaluation of 75 villages from Raigandh, Ratnagiri and Kolhapur districts for Nirmal Gram Puraskar and coordinated various activities at PG in Shivaji University.
8. F.T./Res.Asstt./R.A./Res.Sci: Worked on Biomass Energy Plantation Programme, Semiconductor Septum Solar Cell, Solar Thermal Devices, Solar detoxification projects and anaerobic digestion systems from 1992-2000 in Shivaji University.

Visits to Foreign Countries:

1. Visited **Bangkok** from 23rd April 2010 to 27th April 2010 for International Conference on Environmental Science and Technology and presented Three research papers.
2. Visited **Nepal** from 12th to 14th Dec. 2010 for International Conference on "Biodiversity, Livelihood and Climate Change in the Himalayas" and presented two posters and two oral papers.
3. Visited **Sri Lanka** from 14th to 15th Dec. 2011 for International Conference on "Climate Change and social issues" and presented three oral papers.
4. Visited **Bhutan** from 10th to 13th June 2012 for International Conference on "Environmental Science" and presented three oral papers and one poster presentation.

Work Experience:

1 Particulars of Work Experience

a) Field Technician / JRF / SRF / Project :

- 1) Worked as Field Technician for the Biomass Energy.
- 2) Plantation Project at School of Energy Studies, Shivaji University, Kolhapur, funded by MNES.
- 3) Worked as Project Assistant on Semiconductor Septum Solar Cell Project at School of Energy Studies, Shivaji University, Kolhapur, Funded by DST.
- 4) Worked as Research Associate-cum-Scientist on the Gas Mantle Project at NARI, Phaltan, funded by DST.
5. Worked as Senior Environmental Engineer at G.E.T.P. Pvt. Ltd., Pune.
(For details please see Appendix-II)

b) Teaching Experience

- 1) Undergraduate : Nil
- 2) Post-graduate : 24 Years PG Teaching Experience
(P.G. Teacher) (For details please see Appendix-IIA)

c) Additional Teaching :
Worked as Contributory Teacher in the Department of Environmental Science, DEPM & Department of Agro-Chemicals & Pest Management of Shivaji University, Kolhapur.

2 Innovative Contribution :

- a) Design of Curriculum :
- i) Designed Syllabus and Course Structure for one year Diploma in Carbon Trading and Energy Conservation in Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
- ii) Worked as Sub-committee Member for designing new Syllabus of PG Course in Environmental Science.
- iii) Worked as a Member in Designing the Course and the Syllabus of M.Tech. Environmental Science & Technology.
- iv) Worked as a Member in Designing the Course and Syllabus of Diploma in Environmental Protection and Conservation.
- v) Worked as a Member in Designing Certificate Course and its Syllabus in Environmental Education for Distance Learning Education of Distance Learning Education Centre, Shivaji University, Kolhapur.
- vi) Worked as a Member in Designing the Syllabus for B.Sc. Environmental Science of Shivaji University, Kolhapur.

b) Preparation of Resource materials etc.

I have worked for the collection and preparation of resource material for Refresher Course in Environmental Science, conducted by Department of Environmental Science, Shivaji University, Kolhapur.

c) Refresher courses conducted/co-ordinated

- i) Refresher course co-ordinated in Environmental studies at Academic staff College, Dr. B.A.M. University, Aurangabad from 9th Dec. to 29th Dec. 2011.

3. Research fields or Research areas :

- i) Energy Studies.
- ii) Environmental Pollution and EIA.
- iii) Disaster Management.
- iv) Environmental Health & Sanitation.
- v) Environmental Legislation.
- vi) Biotechnology & Phytoremediation

4. Research Guidance

- i) M.Phil. Students Guided : 01 Declared and awarded by YCMOU, Nashik and 01 Submission is awaited in VMU, Tamilnadu)
- ii) Ph.D. Students Guided : Total 06 Declared and Awarded
 - 1. Total 03 Declared and Awarded by Dr. Babasaheb Ambedkar Marathwada University, Chh. Sambhajinagar.
 - 2. Total 03 Declared and Awarded by PAH Solapur University.

- 5. Consultancy work Experience :** 4.5 years + needful services to industries. Involved in Consultancy works by holding the responsibility as Sr. Engineering; as well as Lecturer & NSS Programme Officer.

- 6. Research Projects Submitted /Funds Sanctioned :**
- i) Major Research Project has been funded by DST of Rs. 48 lacks and 86 thousand (Returned).
 - ii) One Major Research Project by UGC of Rs. 8.66 lacks has been completed.
 - iii) One DST funded Inspire Camp of Rs. 9.75 lack has been completed in February, 2010.
 - iv) One DST funded Inspire Camp of Rs. 9.75 lack has been completed in October, 2010.
 - v) One DST funded Inspire Camp of Rs. 9.75

lack has been completed in August, 2011.
vi) One DST funded Inspire Camp of Rs. 9.75
lack has been Sanctioned for January, 2012.

7. Publications

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|------|--|---|---|
| I. | Conferences/Seminars
Symposia/Workshops attended
only. | : | Twelve seminars / Workshop / Conferences
attended. |
| II. | Research Papers Published in
Journals and Conference
Proceedings. | : | Eighty (80) Research Papers Published in
State Level, National Level and
International Level Journals. |
| III. | Research Papers Submitted/
Accepted/ Presented/Only
abstracted in National and
International Conferences/
Symposia / Seminars/ Workshops
etc. | : | About 75 Research Papers Submitted/
Accepted/ Presented/Only abstracted in
National and International Conferences/
Symposia / Seminars/ Workshops etc. |
| IV. | Books Published | : | Five (05) Books Published. |
| V. | Articles Published in Books | : | About Fifteen Articles have been Published
in Various Books. |
| 8. | Awarded / Prizes / Recognitions
Prizes/Awards/Score : | : | Received Eight Prizes/Awards/Recognitions |

1. **Best Teacher Award, (2011).**
2. **Yashwant Yuwa Gaurav Puraskar (1995) and Honor (1994) by Lalit Rangbhumi, College Katta Sanstha, Pune (Marathwada Division).**
3. **First in M.Sc. Merit (1992) in Shivaji University, Kolhapur.**
4. **B.Sc. Academic Prize (1990), Sangameshwar College, Solapur.**
5. **Science Association Award (1990), Sangameshwar College, Solapur.**
6. **First 'Best paper presentation' in National conference (2003), held at Bora College, University of Pune.**
7. **Third 'Best paper presentation' in National conference (2003), at Bora College, University of Pune.**
8. **First 'Best paper presentation' in National Conference (2009) held at Science College, Murum to the paper contributed.**
9. **Rjarshi Shahu Vishesh Gaurav Puraskar, 2009 by Rajarshi Shahu Samajik Vichar Manch, Kolhapur.**
10. **Best PG Teacher award, 2011 by Yuvashakti Samajik Sanstha, Nashik.**
11. **Rashtriya Gaurav Puraskar (Excellence Award),**

2012 at New Delhi by India International Friendship Society, New Delhi.

12. Rashtriya Samata Fellowship Puraskar, 2013 by Yuvashakti Samajik Sanstha, Nashik.

13. Rashtrapita Mahatma Jyotirao Phule Rajyastariya Gunavant Satyashodhak Pradhyapak Puraskar, 2021 by RMBKS, PROTAN, Maharashtra wing.

14. Dr. APJ Abdul Kalam Educational Excellence Award 2022 by Dr. APJ Abdul Kalam Education Foundation.

15. National Dynamic Teacher Award, 2022 by Avishkar Achievers Foundation, Solapur.

9. Examinations Work

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|------------|--|---|--|
| I | Paper setter and Examiner in Shivaji University, Kolhapur | : | Worked as Paper setter, Examiner and Moderator for all subjects of M.Sc. Environmental Science and all Subjects of DEPM Courses. |
| II | Paper setter and Examiner in Dr. Babasaheb Ambedkar Marathwada University, Aurangabad Chh. Sambhajinagar | : | Worked as Paper setter and Examiner for all subjects of M.Sc. Environmental Science Course. |
| III | Paper setter and Examiner in PAH Solapur University, Solapur | : | Worked as Paper setter and Examiner for all subjects of M.Sc. Environmental Science and Geoinformatics Course. |
| IV | External Examiner in Other Universities | : | Worked as External Examiner for M.Sc. Environmental Science Course in Rashtra Sant Tukadoji Maharaj University, Nagpur; Koimbatour University, Simoga; Swami Ramanand Teerth Marathwada University, Nanded, & Solapur University, Solapur. |
| V | Other Examination work at Shivaji University, Kolhapur | : | Worked as Senior Supervisor for different Examinations as P.G. Level. |

10. Resource person

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| I | Experience as Resource Person | : | I have worked as resource person in different courses such as Training Courses, Refresher Courses, workshops, Conferences & Seminars and delivered Lectures. Conducted demonstrations and Practical, Chaired the Sessions. |
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11. University activities

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|-----------|--------------------------------------|---|--|
| I. | Involvement in University Activities | : | I have actively participated in different activities at Shivaji University, Kolhapur (Including Administrative), Swami Ramanand Teerth Marathwada University, Nanded. PAH Solapur University and Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Chh. Sambhajinagar. |
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- II. Involvement in Departmental Activities : I have actively participated in different Departmental Activities at Shivaji University, Kolhapur and Swami Ramanand Teerth Marathwada University, Nanded PAH Solapur University and Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Chh. Sambajinagar.
12. **NET / SET Guidance** :
- i) Conducted free NET / SET coaching and guidance to Environmental Science Students of Shivaji University, Kolhapur.
 - ii) Delivered Lectures for NET/SET in Environmental Science at Swami Ramanand Teerth Marathwada University, Nanded.
 - iii) Delivered lectures at the workshops conducted by Department of Biochemistry and Botany, Shivaji University, Kolhapur for NET/SET in life sciences.
 - iv) Delivered Lectures for NET/SET in Environmental Science at PAH Solapur University, Solapur.
13. **Extracurricular & co-curricular activities**
- Invited talks / Guest Lectures : Given Various Invited Talks and Popular Lectures for School & College Students for Public Awareness.
14. **Life Membership and Other Memberships** :
- I Life Member of Scientific Society : Life Member of four Societies.
 - II Member of Other Committees : Worked as Member of about 50 Committees in 4 Universities, Shivaji University, Kolhapur and Swami Ramanand Teerth Marathwada University, Nanded PAH Solapur University and Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Chh. Sambajinagar .
15. **Work Experience in NSS / NCC** :
- Extension Activities : I have worked as NSS Programme Officer of PG Unit of Shivaji University, Kolhapur for Three consecutive Academic Years.
- Activity involved in several/different

Contribution to Co-curricular and Extra-curricular Activities	:	extension activities. Actively contributed in Co-curricular activities
16. Achievements in Sports	:	<ol style="list-style-type: none"> 1) Secured highest position in five Km running competition held at P.G. level in academic year 1992. 2) Secured sixth position in open Mini Marathon of 21 Km. Running competition conducted on the occasion of Shahu Jayanti in Kolhapur. 3) Member of Kho-Kho winner team at Post Graduate level in 1991. 4) Secured second in disc throw at P.G. level in Academic Year 1992.
17. Essay & Elocution and other competitions	:	<ol style="list-style-type: none"> 1) Winner of more than six prizes in different elocution competitions and four prizes in essay competitions at various levels. 2) Secured second position in story telling competition at P.G. level in 1992. 3) Secured second position in story telling competition at P.G. level in 1991.
18. Innovative Contributions in Teaching & Practical	:	<ol style="list-style-type: none"> 1) Teaching Methods: Preferred use of LCD Projector and Power Point Presentations as effective teaching tools. 2) Teaching Materials: Used internet Facility for the Collection of Recent Literature for the Students. 3) Laboratory Experiments: Designed new sets of experiments for M.Sc. Environmental Science and DEPM. 4) Evaluation Methods: As per the directions of Concerned BOS. 5) Preparation of resource material including books, reading materials, Laboratory manuals etc.: Actively Participated in Preparation of Teaching Material including slides for Public education, books for the teaching of Environmental Studies etc. 6) Conducted online sessions and lectures.

19. Any Other Future Plans

: I would like to contribute significantly in some of the objectives which are worth to students and society.

Appendix-I
Educational Qualification

Exam/ Degree	Board/University	Subjects Offered	Year of Passing	(Marks) Class/ Grade	Percentage of Marks
NET	UGC	Environmental Science	2002	-	-
Ph.D.	Shivaji University Kolhapur	Environmental Science	1999	A Grade in Pre-Ph.D.	A Grade in Pre-Ph.D.
M.Sc.	Shivaji University Kolhapur	Environmental Science	1992	(1630/2400) First Class	67.91% First in Merit
B.Sc.	Shivaji University Kolhapur	Physics	1990	(1295/1750) First Class	68.28%
H.S.C.	Pune Board	Physics, Biology, Chemistry, Mathematics	1987	(361/600) First Class	60.17%
S.S.C.	Latur Divisional Board	General	General	(445/700) First Class	63.57%

Title of Ph.D. Thesis: “A Study of Sophisticated Energy Resources of Clean Environment.”

Appendix – II
(Particulars of Additional Qualification)

Exam / Certificate /Diploma	Board/University	Subject offered	Year of Passing	Class/ Grade	Marks (%)
D.E.P.C.	N.I.L.E.M. Chennai	Pollution control Technologies	2000	First Class	69.00 %
C.J.M.C	Shivaji University Kolhapur	General	1995	First Class	64.00 % *
C.R.L	Shivaji University Kolhapur	Russian Language	1995	First Class	72.00 % **
D.R.L.	Shivaji University Kolhapur	Russian Language	1996	First Class	60.00 % **
MS-CIT	Govt. of Maharashtra	Computer literacy and Information Science	2004	First Class	66.00 %

* Second in Merit. ** First in Merit

Appendix – III
(Particulars of Teaching Experience)

1) Undergraduate

: Nil

2) Post-graduate(As PG Teacher) : 24 years, PG Teaching Experience

a) Regular Teaching :

Name of Employer	Full Address	Post Held	Period (Academic Years)	Nature of Duties
Department of Environmental Science	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004	Associate Professor	2015-2024 (Rejoining after lien)	Teaching and Research
School of Earth Sciences, Dept of Env.Sc.	Solapur, NH-09, Kegaon, Solapur-413255	Professor	June 2012 to Dec. 2014	Teaching and Research
Department of Environmental Science	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431004	Reader/Asso Professor	2008-2012 (May,2008 to June2012)	Teaching and Research
Department of Environmental Science	Swami Ramanand Teerth Marathwada University, Nanded	Lecturer on Contract Basis	2007-08	Teaching
Department of Environmental Science	Shivaji University, Kolhapur-413001	Lecturer/ Honorary Fulltime Lecturer	1999-2000 to 2006-07	Teaching

APPENDIX-IV

b) Additional Teaching Experience as Contributory PG Teacher

Sr. No.	Worked as	From to	Course	Subject / Topics Taught	Institution
1.	Contributory Teaching Faculty (Research Student)	July-1992 to Sept.- 1996	M.Sc. Energy Studies (Phy.)	Biomass Energy, Solar Energy, Energy Storages, Non-conventional Energy, Energy Audit etc.	School of Energy Studies Department of Physics, Shivaji University, Kolhapur.
2.	Contributory Teacher	Academic Year 1999-2000	M.Sc. Agrochemicals & Pest Management (M.Sc. AGPM)	Toxicology paper, Specifically Bio magnifications, Pesticides and Water Pollution Related topics	Department of Agrochemicals & Pest Management, Shivaji University, Kolhapur.
3.	Contributory Teacher	Academic Year	Diploma in Environmental	Compulsory paper-II Pollution	Department of Environmental

		2002-07	Protection and Management (DEPM)	Control and Optional Papers Related to Energy, Environmental Legislation.	Science, Shivaji University, Kolhapur.
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Appendix-VII

Work Experience as Field Technician / JRF / SRF / RA on Project & Senior Environmental Engineer in Private Company

Name of Employer	Full Address	Post Held	Period (Date-wise)	Nature of Duties
G.E.T.P. Systems Pvt. Ltd.	5, Raagdhari, Aundh, Pune	Senior Environ. Engineer	04/04/97 to 04/04/99	O & M Including R&D
N.A.R.I.	P.B. No. 44 Phaltan	Research Asso. Cum Scientist	23/09/96 to 31/03/97	R&D*
School of Energy Studies under University-Industry Interactions. (SSPL, Pune)	Shree Savitreya Products & Projects Pvt. Ltd., Pune	Environmental Engineer	01-02-1995 to 21-09-1996	R&D**
School of Energy Studies (DST funded Project)	Shivaji University Kolhapur	Research Assistant	01-09-1993 to 31-10-1994	R&D**
School of Energy Studies (Biomass Research Centre-MNES funded)	Shivaji University Kolhapur	Field Technician	26-12-1992 to 31-08-1993	R&D**

***Research Associate / Research Scientist:** Worked on Solar detoxification projects, alternative Materials for the synthesis of gas mantle and jagari making process from Jawar.

**** Field Technician / Research Assistant:** Worked on Biomass Energy Plantation Programme, Semiconductor Septum Solar Cell and Solar thermal Devices.

Appendix-VIII

Research Papers published in Journals and Conference Proceedings:

1. **Chavan B.L.** & Pawar S.H (1994) Survey of House-hold waste for its management with energy recovery, Oikoassay, 11 (1&2) 25-26.
2. **Chavan B.L.** & Pawar S.H (1995) Greenhouse Multichamber Biogas Plant, Invention Intelligence, 30(12) 235-236.
3. **Chavan B.L.** & Pawar S. H (1995) Continuous anaerobic digestion of *Cassia siamiae* & *Cassia fistula* leaves, Conversion & Utilization of Biomass Nat. Conference On DST & MNES 54-58
4. **Chavan B.L.** & Pawar S. H. (1995). Household kitchen waste management using Multichamber biogas plant, Nat. Conference on Conversion & Utilization of Biomass DST & MNES 59-63.

5. **Chavan B.L.** & Pawar S. H (1995). Potentiality of *Cassia siamea* leaves for biogas production, Nat. Conference on Conversion & Utilization of Biomass, DST & MNES 275-282.
6. **Chavan B.L.** & Pawar S. H (1995). Effect of temperature on biogas production Nat. Conference on Conversion & Utilization of Biomass, DST & MNES, 245-253.
7. **Chavan B.L.**, Jadhav R.T. & Pawar S. H. (1995). A study of tubular gassifier Nat. Conference on Conversion & Utilization of Biomass, DST & MNES, 283-292.
8. **Chavan B.L.**, Kshirsagar K.S. & Pawar S. H. (1995). Role of tubular angle in powdery gasification of biomass Nat. Conf. On Conversion & Utilization of Biomass, DST & MNES, 264-274.
9. **Chavan B.L.** & Pawar S. H (1995). Improvement in biogas technology for public health Workshop on Environmental Awareness, UGC 34-35.
10. **Chavan B.L.** & Pawar S. H (1995). Production of biogas from *Cassia fistula* leaves Nat. Conf. On Conversion & Utilization of Biomass, DST & MNES 237-244.
11. **Chavan B.L.** & Pawar S. H. (1995). Teaching of Environmental Education as a separate school subject, Workshop on Environmental Education UGC 26-27.
12. **Chavan B.L.** & Pawar S. H (1995) Use of audio visuals for creating environmental awareness, Workshop on Environmental Education UGC 36-37.
13. **Chavan B.L.** & Pawar S.H. (1996). Household kitchen waste management using multichamber biogas plant, Journal of Environ. & Pollution, 3(3) 195-196.
14. **Chavan B.L.**, Pawaskar, P.N., Pawar S. H (1996). Hydrogen-An Eco sound fuel, Workshop on Environmental Management, SUK, UGC, 6-23.
15. **Chavan B.L.** & Pawar S.H. (1996). Considerable reduction in retention time in GHMC biogas plant, Ecology, 10(6) 8-11.
16. **Chavan B.L.** & Pawar S.H (1996) Multichamber digester economics, Energy Environment Monitor, 13(1) 17-22.
17. **Chavan B.L.**, Jadhav R.T. & Pawar S. H. (1996). Gasification Technology: Development & prospects Nat. seminar on Environmental movements in India, UGC 27-30.
18. **Chavan B.L.** & Pawar S. H. (1996) BST Co-generation Technology for energy crises, Nat. seminar on Environmental movements in India, UGC 70-77.
19. **Chavan B.L.** and Pawar S.H., 2000. Biogas production from household organic waste using KVIC and multichamber models, National conference on Environmental monitoring, Biodiversity and Conservation, Jalgaon, 10-18.
20. **Chavan B.L.** & Shahane A.R. (2000). The salient features of water (P&C) Act, 1974. Environment & People, 10(12), 14-16.
21. **Chavan B.L.**, (2002). Legal Control of Air Pollution in India, Ensym Journal on Environmental Law, 1(1) 113-126.
22. **Chavan B.L.**, Pawar S.H. & Samant J.S (2003). Studies on biogas production from filter cake waste, Recent Advances in Plant, Microbial and Environmental Biotechnology DBT & others 96-109.
23. **Chavan B.L.**, Pawar S.H. & Samant J.S. (2003). Biogas production at different TS concentrations of Filter cake waste, Recent Advances in Plant Microbial and Environmental Biotechnology DBT & others.

24. **Chavan B.L.** & Pawar S.H. (2003). Chakka whey treatment and biogas production with two stages anaerobic filter, Recent Advances in Plant Microbial and Environmental Biotechnology DBT & others, 119-121.
25. **Chavan B.L.**, (2004). Water Resources related international legal provisions, Ensym A journal on Environmental Law, 2&3(1) 65-72.
26. **Chavan B.L.**, (2004). Chromium removal from plating industry effluent using different waste bio-materials under column treatment, *Bioinfolet*, 1(1), 1-4.
27. **Chavan B.L.**, Gaikwad S.B. & Samant J.S (2005). Chromium removal from plating industry effluent with waste biomaterials by batch process *Bioinfolet*, 2(1) 6-8.
28. **Chavan B.L.**, Pawar C.B., Dhere A.M., Varale Y.S. & Wagh S.B. (2005). Phosphates, nitrates, sulphates and chlorides in underground water *Bioinfolet*, 2(2) 107-113.
29. **Chavan B.L.** (2005) International law on water resources Amity Law Review 5/6 (2/1) 47-52.
30. **Chavan B. L.**, Ghadage P.M. & Samant J.S (2005) Treatment of spent wash with two stage bioreactor, Journal of Shivaji University (Sci. & Tech.), 3913-26.
31. **Chavan B.L.** (2006) Book-Review: Environmental Education-A Mission. The Deccan Geographer, 44 (1) 95-96.
32. **Chavan B.L.** and Thigale S.D. (2006) Role of NSS volunteers in Disaster Relief Operation, Conference proceedings of National Conference on Disaster Management: Past, present and future, IMRDA 146-150.
33. **Chavan B.L.** and Thigale S.D. (2007). Natural resource management with the involvement of NSS volunteers, Conference proceedings of National Conference on Disaster Management: Past, present and future, IMRDA, 132-136.
34. **Chavan B.L.**, Thigale S.D. and Panaskar D.B., (2007). Possibility of Harnessing Locally available Potential Biogas resources as energy source for village self-sufficiency, Conference proceedings of National Conference on Disaster Management: Past, present and future, IMRDA, 91-98.
35. **Chavan B.L.** (2007). Effect of Simulated Acid rain on growth Jawar (*Sorgum Bicolour*) *Trajectory*, Vol. 15(1) 25-34.
36. **Chavan B.L.** (2008) Water pollution: Causes, consequences and remedial measures National Conference proceedings 11-14.
37. **Chavan B.L.**, J.M. Patil., P.M. Nalawade and R.S. Pawar (2008): Studies on possibility of use of organic waste materials as coagulants for the treatment of textile industrial effluent. Proceedings of Indo-Italian International conference on Green and clean Environment. Volume-III. pp. 65-69.
38. **Chavan B.L.** and Sonwane N. S. (2009). Seasonal variation in APTI of selective indicator plant species in Aurangabad. National conference on Present scenario of Environmental Pollution and its effect on living organisms, Aurangabad. (Accepted)
39. **Chavan B. L.** and Rasal G. B. (2009) Carbon storage in selective tree species in University campus at Aurnagabad Maha. India. International Conference on Recent Advances in Environmental Protection (held at Agra) Proceeding, 119-131.
40. **Chavan B. L.**, Sonwane N.S. and G. B. Rasal (2009) Impact on air pollution on Photosynthetic pigments (Chlorophyll) of some selected trees grown in and around Aurangabad city. International Conference on Recent Advances in Environmental Protection (held at Agra) Proceeding, 39-42.

41. **Chavan B.L.** (2009) Environmental ethics for Environmental protection *Environmental Conservation Journal* ECJ/282, 10(1&2) 37-41.
42. **Chavan B.L.** and Sonwane N. S. (2009). Seasonal variation in deposited dust on leaves of some selected tree species. National conference on Present scenario of Environmental Pollution and its effect on living organisms, Aurangabad. (Accepted)
43. **Chavan B.L.**, Marwadi, R.A. and Thorat, N.P., 2010. Social, Economical, Environmental and Legal Dimensions for Sustainable Development, conference proceeding of International conference on Region wise changing Demographic profile in India and its Economic implications. Pp.149-154.
44. **Chavan B.L.**, Marwadi, R.A. and Dawane, H.H., 2010. Sustainable Development Related Environmental Provisions in Business Charter, conference proceeding of International conference on Regionwise changing Demographic profile in India and its Economic implications. Pp.149-154.
45. **Chavan B.L.** and Lomte S. S. (2010). Effect of pH on Nickel removal efficiency from plating Industry effluent using Baggase Conference Proceeding of International conference on Environmental science and Technology, Bangkok Thailand. IACSIT, 324-327.
46. **Chavan B. L.**, Pawar S.H., Lomte S.S. and Another one (2010). Photo-catalytic treatments of Spent wash with CaO. Conference Proceeding of International conference on Environmental science and Technology, Bangkok Thailand IACSIT, 328-331.
47. **Chavan B.L.** (2010) Effect of Effluent flow rate on Nickel removal efficiency from Plating industry effluent using Baggase in Column studies. Conference Proceeding of International conference on Environmental science and Technology, Bangkok Thailand. IACSIT, 321-323.
48. **Chavan B.L.** and Sonwane N.S. (2010). Air Pollution Tolerance Indices of some selection plant species grown in Aurangabad (MH). *Journal of GMP and Industrial Pharmacy*, Vol.4 (3) 30-32.
49. **Chavan B.L.** and Pawar S.H. (2010). Designing, Fabrication and testing of multichamber digester for the anaerobic digestion of filtercake waste in sugar mills. *Journal of Science and Information*, Vol.1 (1) 79-81.
50. **Chavan B.L.**, Sonwane N.S., Rasal G.B., Ustad I.R., and Pawar S.H (2010). Decomposition of *Acacia auriculormis* and *Cassia siamea*, *Journal of Science and Information*, Vol.1 (1) 69-71.
51. **Chavan B.L.**, Sonwane N.S. and Ustad I.R. (2011). Effect of tree canopy shade on Photosynthetic pigment in *Mangifera indica*, *Deccan Current Science*, Vol.4 (1) 249-252.
52. **Chavan B.L.** and Sonwane N.S. (2011). Biomonitoring of selected tree species in Aurangabad city using Air Pollution Tolerance Indices, *proceedings of National Conference on Climate Change & Environment*, held at Faridabad, 77-81.
53. **Chavan B. L.** and Rasal G. B. (2010). Sequestered standing carbon stock in selective tree species grown in University campus at Aurangabad, Maharashtra, India. *International Journal of Eng. Sci. and Technology*, 2(7) 3003-3007.
54. **Chavan B.L.**, Ustad, I. R (2010). Comparison of Vermicomposting with pit compost prepared from Municipal solid waste *BIOINFOLET - A Quarterly Journal of Life Sciences*, ISSN: 0973-1431 Vol.7, Issue: 1, Pp. 66-68.
55. **Chavan B. L.**, Rasal G. B. and Kalshetti, M.S., (2011) Total Sanitation Campaign: A success story of village Aasgaon in Maharashtra, India, *Journal of Education and Practice*, ISSN 2222-1735, Vol.2 No.3, p.26-28.

56. **Chavan B.L.** and Rasal G. B., (2011). Diversity of Birds in Local Ecosystem Aurangabad, Maharashtra, India. *Journal of Economics and Sustainable Development*, ISSN 2222-2855, IISTE, Vol2 No.2, p.66-69.
57. **Chavan B.L.** and Sonwane N. S. (2011). Leaf cuticular features as indicators of air pollution, *Deccan Current Science*, Vol. 05(1): 294-298.
58. **Chavan B.L.** and Sonwane N. S. (2011). Local trees as bio-indicators of automobile exhaust in Aurangabad city. *International Journal of GMP and Industrial Pharmacy*, vol.5 (1) 53-56.
59. **Chavan B.L.** and Sonwane N. S. (2011). Stomatal responses to vehicular pollution of some selective tree species grown in Aurangabad city. *International Journal of GMP and Industrial Pharmacy*, vol.5 (2) 34-36.
60. **Chavan B. L.**, Rasal G. B. and Kalshetti, M.S., (2011) Sustainability of Total Sanitation campaign at Kambalwadi Village in Maharashtra, India, *Journal of Education and Practice*, ISSN 2222-1735, Vol.2 No.5, p.42-44.
61. **Chavan B.L.**, Jadhav S.L. and Patil S.S., (2011). Designing, fabrication and performance analysis of solar still for purification of water. *International journal of Innovative Systems Design and Engineering*, ISSN 2222-2871, IISTE, Vol.2, No3 p. 101-107.
62. **Chavan B. L.** and Pawar S.H.(2011) "Effect of 2-Phosphono Butane 1, 2, 4, Tricarboxylic Acid on germination and seedlings growth of *Vigna sinensis*, International Journal of Physical and Social Sciences, ISSN 2249-2496, ISSN: 2249-0558, Vol.2 (2),221-231. (IJMIE) Volume 2, Issue 3, A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A. International Journal of Management, IT and Engineering <http://www.ijmra.us>
63. **Chavan B. L.** and Rasal G. B.(2011). Potentiality of Carbon Sequestration in six year ages young plant from University campus of Aurangabad, Research paper accepted for Global Journal of Researches in Engineering, US ISSN 2249-4588, volume 11 Issue 7,15-20.
64. **Chavan B. L.**, (2011). Review on Solar photo catalytic degradation of environmental contaminants, *Innovative Systems Design and Engineering*, Vol. 2(5), 67-73.
65. **Chavan B. L.** and Davane H. H. (2011). Solar catalyzed photochemical treatment of spent wash by CaO metal Oxide, *Journal of Science and Information*, Vol.2 (1), 54-58.
66. **Chavan B.L.** and Rasal G.B., 2011. Sequestered carbon potential and status of *Eucalyptus* tree, International Journal of Applied Engineering and Technology, Vol. 1(1) 41-47.
67. **Chavan B.L.** and Sonwane N. S (2011). Seasonal variation in leaf pigment content of some trees grown in Aurangabad city. *International Journal of Environmental and Earth Sciences*. Vol.1(1), 40-45.
68. **Chavan B. L.**, (2011). Gandhi's thoughts on sustainable living close to Environmental Protection, Research paper accepted for International Journal of Research in Social Sciences, ISSN 2249-2496, vol. 2(2), 172-182.
69. **Chavan B. L.** and Rasal G. B.(2011). Carbon Sequestration potential of young *Annona reticulate* and *Annona squamosa* from University of Aurangabad, Research paper accepted for International Journal of Physical and Social Sciences, ISSN 2249-2496, Vol.2 issue 2, 193-198.

70. **Chavan B.L.** and Sonwane N.S. (2011). A review of effects of air pollution on tree species. *International Journal of GMP and Industrial Pharmacy*. (Accepted)
71. **Chavan Balbhim** and Rasal Ganesh, (2012). Total Sequestered Carbon Stock of *Mangifera indica*, *Journal of Environment and Earth Science*, Vol. 1(1), 37-48.
72. **Chavan B.L.** and Rasal G.B., (2012). "Carbon sequestration potential and status of *Peltaphorum pterocarpum*" *Science Research Reporter*, Vol. 2(1), 51-55.
73. **Chavan B.L.** and Rasal G.B., 2012. "Comparative status of Carbon dioxide sequestration in *Albizia lebbek* and *Delonix regia*, *UJERT*, Vol. 2 issue 1, 85-92.
74. **Chavan B.L.** and Rasal G.B., (2012). "Carbon Sequestration Potential of *Mangifera indica* in its Growth Phases, G-P-07, A paper presented in oral presentation session of 99th Session of National Science Congress at Bhubaneswar, Orissa.
75. **B.L. Chavan** and S.H. Pawar, (2012). Effect of CODEX 661 on Germination and Seedling Growth of Wheat Crops in Saline Alkaline Black Soil. G-P-06, A paper presented in oral presentation session of 99th Session of National Science Congress at Bhubaneswar, Orissa.
76. **B. L. Chavan** and N. S. Sonwane (2012). Anticipated performance index (API) of some tree species grown in Aurangabad city, *International Journal for Environmental Rehabilitation and Conservation*, Volume III No. 2 2012 [9 – 13] [ISSN 0975 - 6272].
77. **B.L.Chavan** and N. S. Zambare (2013). A Case Study on Municipal Solid Waste Management in Solapur City, Maharashtra, India, *International Journal of Research in Civil Engineering, Architecture & Design*, Volume 1, Issue 2, October-December, 2013, pp. 46-53, © IASTER 2013 www.iaster.com, ISSN Online: 2347-2855, Print: 2347-8284.
78. **B.L. Chavan and N.S. Zambare** N. S. Zambare (2014). Assessment of Ground Water Quality from Wells Located Near Municipal Solid Waste Dumping Sites of Solapur City, Maharashtra, *International Journal of Research in Sciences*. Vol. 2, Issue 1, January June, 2014, pp. 01 07. © IASTER 2014, www.iaster.com

B. L. Chavan and Another, Treatment of sewage through phytotechnological Studies with constructed wetland Using *eichhornia crassipes*, *Journal of Environmental Research And Development* Vol. 7 No. 2, October-December 2012, 660-667.

B. L. Chavan and Another, Sewage treatment with constructed wetland using *panicum maximum* forage grass, *Journal of Environmental Science and Water Resources* Vol. 1(9), pp. 223 - 230, October 2012 Available online at <http://www.wudpeckerresearchjournals.org>; 2012 Wudpecker Research Journals, ISSN: 2277 0704. Pp. 224-230.

1. Shekhar Salunke and **B.L. Chavan**, (2016). Evaluating acquiescence of flexible remediation experimental design sustaining lake water resource quality, *Int. J. Adv. Res.* **4(10)**, 1348-1363, *ISSN: 2320-5407*, Article DOI: 10.21474/IJAR01/1934; DOI URL: <http://dx.doi.org/10.21474/IJAR01/1934>,
2. Shekhar Salunke and **B.L. Chavan**, (2016). Evaluating efficacy of conceptual sediment barrier Matrix towards ecosystem restoration attributes, *IJRET: International Journal of Research in Engineering and Technology* eISSN: 2319-1163 | pISSN: 2321-7308, Volume: 05 Issue: 02 | Feb-2016, Available @ <http://www.ijret.org> Pp 297-300.

APPENDIX-IX

Articles contributed in Books

1. **Chavan B.L.** (2010). Paryavaran Shikshnachi Sankalpana, Swarup, Vyapti ani Disha.: Marathi book 'Gunijan' Vol. 1, Pp.32-36.
2. **Chavan B.L.** (1994). Solar Dryers. In Rural energy for development Marathi-book. (Ed. S. H. Pawar). Garjana Press, Kolhapur. Pp. 34-38.
3. **Chavan B.L.** (1994). Biogas Technology. In Rural energy for Development. Marathi-book (Ed. S. H. Pawar). Garjana Press, Kolhapur Pp. 67-71.
4. **Chavan B. L.** (1994). Energy from Waste. In Rural Energy for Development. Marathi-book (Ed. S. H. Pawar). Garjana Press, Kolhapur Pp. 72-76.
5. **Chavan B. L.** (2003). A Critical Appraisal of Wildlife (Protection) Act, 1972 *In: Current Environmental Issues* (B.B.S. Kapoor, Ahmed Ali, K.K. Sing and Chandrakanta).pp. 101-106.
6. **Chavan B.L.** and S.H.Pawar(1998). Environment Improvement through Biogas Technology. In: *Sociology of Environment*. Rawat Publications, Jaipur. Pp. 100-107.
7. **Chavan B.L.**, S.A. Pujari and S.H. Pawar (2001) Environmental Pollution and Remedial Measures. In: *Environmental Movements in India*. Rawat Publication, Jaipur. Pp.207-216.
8. **Chavan B.L.**, R.T.Jadhav and S.H. Pawar (2001) Gasification Technology: Development and Prospects. In: *Environmental Movements in India*. Rawat Publication, Jaipur. Pp.217-228.
9. **Chavan B.L.** and S.H.Pawar (2001) Bio-Solar-Thermal Co-Generation Technology for Energy Crises. In *Environmental Movements in India*. Rawat Publication, Jaipur. Pp.229-243.
10. Samant J.S., Bhosale R.A., Oak S.S., Samant A.J., **Chavan B.L.** and Kumar S.S., (2005). Natural Resources and Associated Problems. Chapter 2 contributed in the book 'Environmental Studies', Shivaji University, Kolhapur. Pp. 5-43.
11. Samant J.S., A.J. Samant, S.S. Kumar and **Chavan B.L.** (2005). Social issues and the Environment. Chapter 6 contributed in the book 'Environmental Studies', Shivaji University, Kolhapur. Pp. 170-220.
12. **Chavan B.L.** and A.J. Samant. (2005). Environmental Protection. Chapter 7 contributed in the book *Environmental Studies*, Shivaji University, Kolhapur. Pp. 221-258.
13. **Chavan B.L.**, Biological Diversity: Need of Future, Biodiversity: Assessment and Conservation, 85-97.
14. **Chavan B.L.**, 2005. Need of Trees Health survey, Marathi Book, 'Vasundhara'.24.
15. **Chavan B.L.** (2010). Globalization, Environment and Indian Agri, Marathi article in book 'A tegna' Vol. 1, pp., 20-23.

Additional/Other Publications

Papers only Submitted / Accepted / Presented / Abstracted in International Workshops,

Conferences / Symposia etc.:

Chavan B.L. and Zambare N. S., (2013). A Case Study on Municipal Solid Waste Management in Solapur City, Maharashtra, India, *International Journal of Research in Civil Engineering, Architecture & Design* Volume 1, Issue 2, October-December, 2013, pp. 46-53, © IASTER 2013, www.iaster.com, ISSN Online: 2347-2855, Print: 2347-8284

- 1) **Chavan B.L.** and Rasal G.B., (2011). "Carbon sequestration potential of *Mangifera indica* in its various growth phases" 99th Indian Science Congress, Bhuvaneshwar, India (Presented).
- 2) **Chavan B. L.**, 2011.Environmental Ethics with reference to Climate Change,International conference on Climate change and Social issues, 13-15 Dec.,Colombo, Sri Lanka. Paper Abstracted &presented.
- 3) Jadhav, S. L., **Chavan***, **B. L.**, Babare¹, M. G. and Thigale, S. D., 2011. Science, ethics and economic aspects of climate change and need of computer modeling, International conference on Climate change and Social issues, 13-15 Dec.,Colombo, Sri Lanka. Paper abstracted & presented.
- 4) Babare M.G., **Chavan B. L.** and Rasal G. B., 2011. Sequestered carbon stalk in young *Annona reticulata*plant in Aurangabad, International conference on Climate change and Social issues, 13-15 Dec.,Colombo, Sri Lanka. Paper Abstracted & presented.
- 5) **Chavan B. L.** and Pawar S. H. 2011. Effect of Codex-551 on seedling growth of *Vigna unguiculata*. International conference on Climate change, Forest resource and environment, organized by dept. of Environmental Science, University of Kerala, Thiruvanthapuram in collaboration with national Environmentalists association, Ranchi. Paper presented.
- 6) **Chavan B. L.** andPawar S. H. 2011. Effect of Codex-551 on germination and seedling growth of wheat (*Triticum aestivum*) crop in saline-alkaline black soil. 1st World Congress for Man and Nature "Global Climate Change & Biodiversity Conservation" Haridwar, Uttrakhand, India. Paper presented.
- 7) **Chavan B.L.**, Jadhav S.L and Jaiswal D.A. 2011 Noise pollution studies during Ganesh festival at different places in Aurangabad city, Maharashtra during the year 2008, 1st World Congress for Man and Nature "Global Climate Change & Biodiversity Conservation" Haridwar, Uttrakhand, India. Paper presented.
- 8) **Chavan B.L** and Sonwane N.S. 2011 Anticipated Performance Index (API) of some tree species grown in Aurangabad city, 1st World Congress for Man and Nature "Global Climate Change & Biodiversity Conservation" Haridwar, Uttrakhand, India. Paper presented.
- 9) **Chavan B.L.**, Jadhav S.L and Davane H.H. 2011 Effect of exposer time on CaO metal oxide catalyzed solar photochemical treatment of Spent Wash, 1st World Congress for Man and Nature "Global Climate Change & Biodiversity Conservation" Haridwar, Uttrakhand, India. Paperpresented.
- 10) **Chavan B.L.**,2010.Effect of Effluent flow rate on Nickel removal efficiency from plating industry effluent using Baggase in Column studies.International conference on Environmental science and Technology, Bangkok Thiland.IACSIT.Paper presented.
- 11) **Chavan B. L.** and Babare M.G.,2011.Scientific and Technological Perspectives on Bio-gas Technology in India.International Conference on Ecosystem Conservation and Sustainable Development.Page No. 217Abstract No.190 Paper Presented.

- 12) Lomte S.S., Rasal G.B., Dhulap V. P. & **Chavan B.L.**, 2010. Seasonal Variational in Bird Population at University Campus of Aurangabad. International conference on Environmental science and Technology, Bangkok Thailand. IACSIT. Paper presented.
- 13) **Chavan B.L.** and Lomte S. S., 2010. Effect of pH on Nickel removal efficiency from plating Industry effluent using Bagasse. International conference on Environmental science and Technology, Bangkok Thailand. IACSIT. Paper presented
- 14) **Chavan B. L.**, Pawar S.H., Lomte S.S. and Dhulap V. P., 2010. Photo-catalytic treatments of Spent wash with CaO. International conference on Environmental science and Technology, Bangkok Thailand. IACSIT Paper presented.
- 15) **Chavan B. L.**, 2010. Total Sanitation campaign success in Village Kambalwadi in Maharashtra. International conference on Environmental science and Technology, Bangkok Thailand. IACSIT Paper presented.
- 16) **B. L. Chavan.**, Rasal, G. B., Pawar, S.H., Sonwane, N.S., Dhulap V.P. and Jadhav S.L., 2010. Diversity of Birds in Local Ecosystem Aurangabad, Maharashtra, India. International Conference on Biodiversity, Livelihood & Climate change in the Himalayas. Kathmandu, Nepal. Paper Abstracted & presented.
- 17) **B. L. Chavan.**, N.S. Sonwane, G. B. Rasal, S.H. Pawar, V.P. Dhulap and S.L. Jadhav 2010. Air pollution tolerance indices of some selective plant species grown in Aurangabad (MH) International Conference on Biodiversity, Livelihood & Climate change in the Himalayas. Kathmandu, Nepal. Paper Abstracted & presented.
- 18) **Chavan B. L.** and G. B. Rasal 2009. Total Carbon Sequestration in selective tree species grown on University campus in Aurangabad, Maha. India. International Conference on climate change and sustainable management of Natural resources ITM Universe, Gwalior, M.P. held on Oct. 2009 IASCA Paper Abstracted.
- 19) **Chavan B. L.** and G. B. Rasal 2009. Carbon storage in selective tree species in University campus at Aurangabad Maha. India. International Conference on Recent Advances in Environmental Protection Dept. of Chemistry, St. John College, Agra. India. held on 17th to 19th Dec. DST Paper presented.
- 20) **Chavan B. L.**, Sonwane N.S. and G. B. Rasal 2009. Impact on air pollution on Photosynthetic pigments (Chlorophyll) of some selected trees grown in and around Aurangabad city. International Conference on Recent Advances in Environmental Protection Dept. of Chemistry, St. John College, Agra. India. held on 17th to 19th Dec. DST. Paper presented.
- 21) **Chavan B.L.**, Zambare N.S., Dhulap V.P., Rasal G.B. and Mule M.B. 2009. Comparative study of Nutrient concentration in Earthworm-Vermicompost and Pit compost from Municipal Solid Waste. International conference on Advances in Biosciences: From Darwin to Dolly and Beyond... held on 12-14 February 2009. at Yashwant Mahavidyalaya, Nanded. Paper presented.
- 22) **Chavan B.L.**, Dhulap, V.P. and Ustad U.R. 2008. Lead content in leaves due to fall-out on tree species as Bio-monitoring of air pollution near Highway. International conference on Technologies for Mitigation of Envi. Pollution their application in conservation of Aquatic Ecosystem held on 11-13 December at dept. of Zoology, Dr.B.A.M.U. Aurangabad. Paper presented.
- 23) **Chavan B.L.** & Pawar S. H. 1996. Effect of storage on biogas production potentiality in filter cake The World Renewable Energy Congress, WREC, Paper presented.
- 24) **Chavan B.L.** Salunkhe S.L. & Pawar S. H. 1996. A study of filter cake storage effect on its biogas production in KVIC biogas plant CONIAPS, Paper Presented.

- 25) **Chavan B.L.** & Pawar S. H. 1996 Continuous anaerobic digestion of filtercake in KVIC and Multichamber CONIAPS, Paper presented.
- 26) **Chavan B.L.** & Pawar S. H. 1996 Continuous anaerobic digestion of filtercake in multichamber biogas plant. The World Renewable Energy Congress, WREC, Paper presented.
- 27) **Chavan B.L.** & Pawar S. H. 1997 Characterization of Al-Cr-Fe oxide films by spray pyrolytic deposition. International conference on Metall. coating and Thin films. Paper accepted for oral presentation.
- 28) **Chavan B.L.**, Pawar S. H et al. 1997 Effect of substrate Temperature on films. International conference on Metallurgical coating and Thin films. Paper accepted for poster presentation

Papers only presented and abstracted at various National Conferences, Symposia, Seminars, etc.:

- 1) **Chavan B. L.** and Pawar S. H., 2011. Effect of Codex-551 on seed germination of *Vigna unguiculata* in saline-alkaline black soil. Paper presented at National level conference on “Advances in life sciences for sustainable rural development Akola, Maharashtra, India. Paper presented.
- 2) **Chavan B. L.** and Pawar S. H., 2011. Effect of Codex-551 on germination of wheat crop in saline-alkaline black cotton soil. Paper presented at National level conference on “Conservation of Biodiversity in Relation to Climate Changes and Global Impact” Hingoli, Maharashtra, India. Paper presented.
- 3) **Chavan B. L.** and Pawar, S. H., 2011. Effect of Codex-661 on germination of wheat crop in saline soil. Paper presented at National level Seminar on “Environmental Pollution and Remedies,” Aurangabad, Maharashtra, India. Paper presented.
- 4) **Chavan B.L** and Sonwane N.S., 2011. Bio-monitoring of selected tree species in Aurangabad city using air pollution tolerance indices. National conference on climate change and Environment. Al. Falah school of Engineering and Technology, Faridabad, Delhi. DST. Paper presented.
- 5) **Chavan B.L** and Sonwane N.S., 2009 Seasonal variation in APTI of selective indicator plant species in Aurangabad, National Conference held on Present scenario of Environmental Pollution and its effect on living organisms at Govt. college of Arts & Science, Aurangabad. NEA. Paper presented.
- 6) **Chavan B.L** and Rasal G.B., 2009. Carbon content in stem and leaves of some common tree species from Aurangabad. National Conference held on Present scenario of Environmental Pollution and its effect on living organisms at Govt. college of Arts & Science, Aurangabad. NEA. Paper presented.
- 7) **Chavan B.L.**, Dhulap V.P., Rasal G.B. and Mule M.B., 2009 Social movement for curbing the greenhouse gases. National conference on Environmental crises: alternative paradigms held on 30-31 January 2009 at Shivaji University, Kolhapur UGC. Paper Presented.
- 8) **Chavan B.L.**, Mule M.B. and Salavade S.M., 2009. Population explosion and Environment: Role of women. National conference on Environmental crises: alternative paradigms held on 30-31 January. 2009. at Shivaji University, Kolhapur. Paper Presented.
- 9) **Chavan B.L.** 2008 Use of *Gliricidia sepium* Leaves in Biogas Technology for Energy Generation. National Seminar on BIO Technology opportunities and Challenges held on 28th February 2008. at Dept. of Biotechnology, Walchand College of Arts and Science, Solapur. Paper Presented.
- 10) **Chavan B.L.**, Pawar R.S., and Panaskar P.N. 2008 Phyto-remediation of textile mill effluent by using water hyacinth (*Eichhornia crassipes*). National Seminar on BIO Technology opportunities and Challenges held on 28th February 2008. at Dept. of Biotechnology, Walchand College of Arts and Science, Solapur. Paper Presented.

- 11) **Chavan B.L.**, Sonwane N.S., Mule M.B., Dhulap V.P., Ustad I.R. and Sonje N.P. 2009 Response of *Phragmites karka* to nitrogen and phosphorous. National Conference on Recent Trends in Biodiversity and Bio-science, held at Murum Dist. Osmanabad on 14th and 15th March. Paper Presented.
- 12) **Chavan B.L.**, Sonwane N.S., Mule M.B., Dhulap V.P., Ustad I.R. and Sonje N.P. 2009 Need of biodiversity conservation in Western Ghats. at National Conference on Recent Trends in Biodiversity and Bio-science, held at Murum Dist. Osmanabad on 14th and 15th March. Paper Presented.
- 13) **Chavan B.L.**, Sonwane N.S., Dhulap V.P., Mule M.B. and Ustad I.R. 2009 Water pollution, its causes and common remedial measures in rural India National Conference on Recent Trends in Biodiversity and Bio-science, held at Murum Dist. Osmanabad on 14th and 15th March Paper Presented.
- 14) **Chavan B.L.**, Sonwane N.S., Mule M.B., Ustad I.R. and Pawar S. H. 2009 Decomposition of *Acacia auriculoformis* and *Cassia siamea*. National Conference on Recent Trends in Biodiversity and Bio-science, held at Murum Dist. Osmanabad on 14th and 15th March. Paper Presented.
- 15) **Chavan B.L.** 2009 Gandhian thoughts on Environmental Protection. National Seminar on Gandhi and Environment, held at Gandhi Peace Foundation, Wardha on 15th March, organized dated 14th to 16th March. Paper Presented.
- 16) **Chavan B.L.** & Pawar C.B. 2005. Detection of groundwater gradient in the local wetlands of Tadsar in Sangli district of Maharashtra. National Seminar on the Wetlands, SUK Paper presented.
- 17) **Chavan B.L.**, Mane A.V. & Samant J.S. 2003 Effect of simulated acid rain on the germination and seedling growth. Recent Advances in Environmental Biology, Academy of Enviro. Biology. Paper Presented.
- 18) **Chavan B.L.**, Mane A.V. & Samant J.S. 2003 Effect of Organic Loading rate on Anaerobic digestion in UASB Bio-reactor Recent Advances in Environmental Biology, Academy or Enviro. Biology. Paper Presented.
- 19) **Chavan B.L.**, Gaikwad S.B. & Samant J.S. 2003 Removal of Nickel from Plating industry waste water using different bio-adsorbents. Recent Advances in Plant, Microbial and Environmental Biotechnology, DBT & other. Paper Presented.
- 20) **Chavan B.L.**, Terdalkar S.S. & Samant J.S. 2003 Removal of Chromium from Plating industry Waste Water by using Different bio-adsorbents. Recent Advances in Plant, Microbial and Environmental Biotechnology, DBT & others. Paper Presented.
- 21) **Chavan B.L.**, Ghadage D.S. & Samant J.S. 2003 Biogas Production Potentiality in *Echhornia crassipes* & *Ipomoea fistulosa*, Recent Advances in Plant, Microbial and Environmental Biotechnology, DBT & others. Paper Presented.
- 22) **Chavan B.L.**, Pawar S.H. & Samant J.S. 2003 Studies on biogas production from filter cake waste, Recent Advances in Plant. Microbial and Environmental Biotechnology, DBT & others. Paper Presented.
- 23) **Chavan B.L.**, Pawar S.H. & Samant J.S. 2003 Biogas production at different TS concentrations of Filter cake waste. Recent Advances in Plant, Microbial and Environmental Biotechnology, DBT & others. Paper Presented.
- 24) **Chavan B.L.**, & Pawar S.H. 2003 Chakka whey treatment and biogas production with two stage anaerobic filter. Recent Advances in Plant, Microbial and Environmental Biotechnology, DBT & others. Paper Presented.
- 25) **Chavan B.L.** & Pawar S. H. 1996 Biogas production from filtercake at different solid concentrations National solar energy conversion, MNES. Paper Presented.

- 26) **Chavan B.L., & Pawar S.H.** 1996 Designing of Shivaji biogas plant model for large scale power generation with press mud. National Seminar on Environmental movements in India, UGC Paper Presented.
- 27) **Chavan B.L., & Pawar S.H.** 1996 Modeling of biogas energy rout with clean environment, Workshop on IRDP, Paper Presented.
- 28) **Chavan B.L. & Pawar S. H**1996 Development of Al-Cr-Fe oxide catylists. National solar energy conversion, MNES MNES Paper Presented.
- 29) **Chavan B.L., & Pawar S.H.** 1996. Al-Cr-Fe oxide catalyst in pyrolytic gasification MRSI, DST. DST Paper Presented.
- 30) **Chavan B.L., & Pawar S.H.,** 1996. Cobalt oxide coating by spray pyrolysis, MRSI, DST DST. Paper Presented.
- 31) **Chavan B.L. & Thigale S.D.,** 2006. Role of NSS volunteers in mitigating the environmental pollution problems in rural areas. National Conference on Environ. Pollution & Toxicology, MPCB & MumbaiUniversity. Paper Presented.
- 32) **Chavan B.L. & Thigale S.D.,** 2007. Biological diversity protection and involvement of NSS volunteers National conference on varied perspectives of biodiversity, UGC Paper Presented.
- 33) **Chavan B.L. Pawaskar P.N & Pawar S. H.,** 1995. Continuous digestion of household organic waste using multichamber biogas plant. Nat. Conf. On conversion and utilization of biomass, MNES. MNES Paper Presented.
- 34) **Chavan B.L. & Pawar S. H.,** 1994. Waste treatment & Energy production: role of Greenhouse effect, Commercialization of renewable energy technology DST & MNES. DST. Paper Presented.
- 35) **Chavan B.L., Desai T.S & Pawar S. H.** 1993 Superconductor-semiconductor heterojunction by electrodeposition for s.s.s.c., Thirteenth National Symposia, DST. DST Paper Presented.
- 36) **Chavan B.L.** 2005 Sustainable Development in Social, Economic and Legal context, National Seminar on sustainable development, UGC. UGC Paper Presented.
- 37) **Chavan B.L. & J.M. Patil,** 2005. Environmental Dimensions of Business for Sustainable Development National Seminar on sustainable development, UGC. UGC. Paper Presented.
- 38) **Chavan B.L. & Pawar S. H.** 1993. Recent trends in harnessing energy without damage to the environment. National seminar on Environmental Protection, MoEF. Paper Presented.
- 39) **Chavan B.L. & Pawar S. H.** 1995. Energy & Environment: An intimate relation. Seminar on Society and Environment, UGC. Paper Presented.
- 40) **Chavan B.L. & Pawar S. H.** 1995. Improvement in environment through biogas technology Seminar on Society and Environment, UGC. Paper Presented.
- 41) **Chavan B.L. & Pawar S. H.**1995. Preliminary survey of household organic waste for its management with energy recovery. Seminar on Society and Environment, UGC. Paper Presented.

Appendix X

List OF Students & Titles of M. Phil. and Ph.D. registered/ Working

Sr. No.	Name of the Student	Degree & Branch	Year of the Degree Awarded	Brief Title of research
1.	Nandkumar Zambare	Ph.D. Science	Ph.D. Declared	Municipal Solid Waste
2.	Ganesh Rasal	Ph.D. Science	Ph.D. Declared	Studies on Carbon Sequestration Status and Potential of Trees in and around Aurangabad city in Maharashtra, India.

3.	Nandkishor Sonwane	Ph.D. Science	Ph.D. Thesis Submitted.	Study of Air Pollution Tolerance Indices of some selective tree species
4.	Deep Jaiswal	M.Phil.	M.Phil awarded.	Study of Noise Monitoring in Aurangabad city

Appendix XI

List of Research Project from different funding agencies:

Sr. No.	Title of Project /Scheme	Funding Agency	Amount of Funds Expected in the proposal	Proposed to work as Principle Investigator/Co-investigator
1	INSPIRE Internship camp for bright students Feb.2010	DST	₹9,75,000/- (Completed)	Co-ordinator
2	INSPIRE Internship camp for bright students Sept.2010	DST	₹9,75,000/- (Completed)	Co-ordinator
3	INSPIRE Internship camp for bright students Aug.2011	DST	₹9,75,000/- (Completed)	Co-ordinator
4	INSPIRE Internship camp for bright students Jan.2012	DST	₹9,75,000/-	Co-ordinator
4	Development of sustainable and cost effective treatment for the reclamation of salt affected vertisol (Saline-alkaline black cotton soil)	UGC	₹8.66 lacks (Ongoing)	Principle Investigator

Appendix-XI I

List of Research Projects submitted to different funding agencies.

Sr. No.	Title of Project /Scheme	Funding Agency	Amount of Funds Expected in the proposal	Proposed to work as Principle Investigator/ Co-investigator
1	“Carbon allocation status in tree species in University campus and nearby landuse systems of Solapur Urban Ecosystems”	DST	₹48,86,125/- (Funds pending with Dr.BAMU)	Principle Investigator

Appendix – XIII

Consultancy work carried out in Industry and University:

Sr. No.	Industry/ Organization	Nature of Consultancy Work	Amount of Grants	Period of Work executed
1.	Shree Savitreya Products & Projects., Pune	R & D on Electrodeposition of various metals on to SS sheets for selective solar surfaces., Biogasification of filtercake waste and development of biogas mutichamber model	8 Lacks	Feb.95 to Sep. 96.

2.	Gujarat Ambuja Proteins Ltd., Himmat Nagar Gujarat & Doburg Brav. Satara.	R & D on alteration and modification in ETP, guidance and sole responsibility including setting of laboratory of ETP monitoring and testing.	25Lacks	Oct. 96 to Nov. 97.
3.	Central Distillery and Breweries Ltd., Meerat Cantt. U.P.	Digester commissioning, stabilization and ETP O & M	10 Lacks	Dec. 97 to Jan 98.
4.	India Sugars Pvt. Ltd., Hospet, Karnataka	Digester commission and Operation-Maintenance	5 Lacks	Jan. 98 to Mar 98.
5.	U.D.C.L Udaipur	Revamping & commissioning of old dormant ETP	9 Lacks	April 98 to Sep. 98.
6.	K.K.Kashyap Sweetners, Badnawar, M. P.	Digester erection, commissioning, stabilization and ETP O & M	10 Lacks	Sep. 98 to Jan 99.
7.	Shree Gayatree Distillery, Ratlam, M. P.	Digester commissioning, stabilization and ETP O & M	10 Lacks	Jan. 99 to Mar. 99.
8.	Department of Environ. Science	Nirmal Gram Evaluation of 86 villages	1.72 Lacks	2005-06.
9.	Department of Environ. Science	Nirmal Gram Evaluation of 86 villages	0.34 Lacks	2006-07.

*After joining the Department of Environmental Science, actively participated in the EIA conducted on road widening of N. H. 4. Highway.

Appendix-XIV Books published

Sr. No.	Name of Author	Name of Publisher	Year of Publication	Title of Book	Total pages
1	Chavan B.L., Pawar C.B. & Dhere A.M.	(Marathi book- Paryavaran Abhyas), Shabdawel Prakashan, Kolhapur.	2005	Environmental Studies	184
2	Chavan B.L., S.B. Chavan, Shahane A.R. & Ravandale C.B	Asian Institute of Environmental Law, Karmala.	2000	Introduction to Environmental Law.	329
3	Chavan B. L. and Shahane A.R	Akshar Yatra Publication, Solapur	2009	Conservation of Wildlife and Biodiversity,	230
4	Chavan B. L.	Lotus Publications Solapur	2011	Multiple Choice in Environmental Science	160
5	Chavan B.L. and Sonwane N.S.	Aksharlane Publication	2011	Inspirational Scientist and scientific research	59

Appendix-XV

List of Major Achievements, Awards and Prizes

1. **“State level Best Teacher Award”** by Yuva Shakti Samajik Sanstha (Youth forum) in association with Pragati Mahila Samajik Sanstha, Nashik on 5thFeb.2011.
2. First Prize in “Best paper presentation” at National Conference on ‘Recent advances in plant, microbial and environmental biotechnology’ held at Shirur, Dist. Pune in year 2002-3.
3. Third Prize in “Best paper presentation” at National Conference on ‘Recent advances in plant, microbial and environmental biotechnology’ held at Shirur in year 2002-3.
4. **“Yashwant Yuwa Gourav Puraskar”**, 1995 (State level award for young activist declared by Lalit Rangbhumis Maharashtra, Aurangabad and College Katta Savnsta, Pune).
5. **“Rajarshi Shahu Vishesh Gourav Puraskar”** in year 2009 (Award declared for the noticeable contribution in the field of Environment by Rajarshi Shahu Samajik Vyaspeeth, Gandhinagar, Kolhapur).
6. **First Prize** in “Best paper presentation” for the paper, Response of *Phragmites karka* to nitrogen and phosphorous, presented by **Mr. V. P. Dhulap**, research student of **Dr. B.L.Chavan**. At National Conference on Recent Trends in Biodiversity and Bio-science, held at Murum Dist. Osmanabad on 14th and 15th March, 2009.
7. **“Young Scientist Award”** for the paper, Seasonal variation in APTI of selective indicator plant species in Aurangabad, presented by **Mr. N.S.Sonwane**, research student of **Dr. B.L.Chavan**. At National conference organized at Government Science College, Aurangabad on 9th to 11th Nov. 2009.
8. Secured **First** position in Merit of M.Sc. Environmental Science in April 1992.
9. Awarded **‘Science Students Association Award’** for securing highest number of Marks in Sangameshwar College, Solapur in B.Sc. III Physics in April 1990.
10. Awarded **‘Academic prize’** for securing highest number of marks in Sangameshwar College, Solapur in B.Sc. Physics Degree in April 1990.
11. Secured Second highest position in H.S.C. Science in Akalkot Centre in March 1987.
12. Secured highest position in the **Merit of Certificate and Diploma in Russian Language** and Certificate course in **Journalism and Mass Communication** in Shivaji University, Kolhapur in April 1994 and 1995 respectively.
13. Awarded Rashtreeya Gaurav Puraskar at New Delhi in May, 2012.

Appendix-XVI

Guest lectures/Invited talks delivered

1. Deliver invited talk on “Methodologies & protocol for carbon sequestration of tree Species” at Parvostav: Passing the Legacy. Conference organized by Terracon Ecotech Pvt. Ltd. and ENBITECH Mumbai, on 25th November 2010.
2. Delivered two lectures on Non-renewable energy resources at UGC sponsored 1st Refresher course in research methodology (Phy, Chem, Maths, & Stat.) on 19th Nov. 2010.
3. Delivered two lectures on Environmental legislation at UGC sponsored 4th Refresher course in Environmental Studies teacher educatory program during 13th October, 2010.
4. Delivered a guest lecture on NET/SET workshop at D.B.J. College, Chiplun on 4th Aug. 2010.
5. Delivered a guest lecture on Environmental Pollution at NSS program arranged by Sir Sayyad College and Science, Aurangabad on 11th Feb.2011.
6. Delivered a guest lecture on NET/SET workshop at D.B.J. College, Chiplun. 4th Aug. 2010.
7. Delivered lecture on Wastewater management at KRC, Nanded on 13th Dec. 2007.
8. Delivered lecture on Sanitation and Health at KRC, Nanded on 13th Dec. 2007.

9. Delivered lecture on Solid Waste Management at KRC, Nanded on 13th Dec. 2007.
10. Delivered lecture on Total Sanitation Campaign: Nature and Direction at KRC, Nanded on 14th Dec. 2007.
11. Delivered an invited talk on Biodiversity and Conservation at the one day workshop on Environmental Education organized by Sangameshwar College, Solapur on 26th August, 2007. Worked as committee member for various committees for the State level workshop on Common syllabus at graduate level held at SRTMU, Nanded on 18th April, 2008.
12. Delivered an invited talk on Environmental Impact Assessment at the State level conference on recent trends in Biotechnology, Biodiversity and Environmental aspects on 20th Dec., 2008 at Parner, Dist. Ahamadnagar.
13. Delivered a Guest lecture on Environmental problems and solutions: Role of Students as an inaugural address on the occasion Environmental Club at S.B.E.S. College of Science, Aurangabad on 17th September, 2008.
14. Inaugurated the Workshop and delivered a lecture as a Key Note Address on Global Warming at the University level workshop organized by Annasaheb G.D. Bendale Mahila Mahavidyalaya, Jalgaon on 12th January, 2009.
15. Delivered invited talk on Global warming and climate change in the N.M.U. Jalgaon sponsored seminar on Global warming organized by B.P.Arts, S.M.A. Science and K.K.C. Commerce College, Chalisgaon on 7th January, 2009.
16. Delivered invited 4 lectures for CSIR-NET coaching in life science at Shivaji University, Kolhapur on 6th and 7th February, 2009 organized by Dept. of Botany.
17. Worked as Resource person for one day workshop held on 19th December 2008 at Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur and delivered lecture on Environmental Audit and Accounting.
18. Delivered an invited talk on Environmental Audit at the Content updating Training Program on Environmental Management & Audit held at civil engineering department in Government Polytechnic, Aurangabad on 10/02/2009.
19. Delivered an invited talk on Environmental Legislation at the Content Updating Training Program on Environmental Management & Audit held at civil engineering department in Government Polytechnic, Aurangabad on 10/02/2009.
20. Delivered an invited talk on Environmental Impact Assessment at the Content Updating Training Program on Environmental Management & Audit held at civil engineering department in Government Polytechnic, Aurangabad on 10/02/2009.
21. Delivered an invited talk on 'Water Pollution: Causes, consequences and remedial measures' at National conference organized at Killedharur, Dist. Beed.
22. Attended and participated in one-day silver jubilee workshop on Renewable Energy: An Overview on 26th July, 2008, organized by Department of Mechanical Engineering, MAEER's MIT, Pune.
23. Delivered 6 lectures on Sustainable development, Ecosystem dynamics and other subjects for Y.C.M.O.U. approved M.Phil. in Environmental Science at MIT college, Aurangabad.
24. Delivered a lead lecture on Global warming, Climate Change and its impacts at the State level seminar on Current Environmental Problems on 16th March, held at Pratibha Niketan Mahavidhyalaya, Nanded, organized on 15th and 16th March, 2009.
25. Delivered lectures in UGC-Academic Staff College, University of Pune sponsored Refresher courses in Environmental Science. 9th and 10th Dec., 2003.
26. Delivered lectures at the workshop on Teaching of 'Pollution' and 'Environmental Legislation' in Environmental Studies arranged for the college teachers on 29th August, 2005 at Smt. Mathubai Garware Kanya Mahavidyalaya, Sangli.

27. Delivered lectures on “Environmental Conservation” at the workshop on Environmental Studies arranged for the college teachers on 16/03/2005 at Adult Education & Distance learning Department, Shivaji University, Kolhapur.
28. Delivered lecture at the workshop on ‘Job opportunities for the Science graduates’ arranged for Science graduates at the Mahaveer college on 26 and 27th April, 2006 under lead college programme.
29. Delivered lecture at the workshop on ‘Projects in Environmental Studies’ arranged for 2nd year graduation students at the KMC college in November, 2006 under lead college programme.
30. Delivered lectures in NET/SET workshop to prepare SC/ST students conducted at Department of Environmental Science on 12th and 13th Dec. 2006.
31. Delivered guest lecture on SET and NET examination preparation in Environmental Science on 10th March, 2006 at SRT Marathwada University, Nanded.
32. Delivered Invited talk on “Pollution of Air, Water and soil” in Nature Education certificate course guidance coaching by Green Guards, Kolhapur on 19th May 2006.
33. Delivered an invited talk on “Project Reports on Environmental Pollution” at Shri Vijaysinha Yadav Arts & Science College, Peth Vadgaon on 18th Dec. 2006.
34. Delivered an invited talk on “Employment opportunities for the Science graduates” at Mahavir Mahavidyalaya, Kolhapur on 27th April 2006.
35. Delivered an invited talk on “Environmental Education System” at the Educational Think Tank (Headmasters and Teachers) Gathering, held at Bharati Vidyapeeth High school, Pachgaon on 19/12/2006.
36. Delivered Invited talk on “Total Sanitation Campaign and Daily Association of Block Development Officers” at the Workshop, organized by Gramsevak Training Centre, Kolhapur on 13th and 14th Feb. 2007.
37. Delivered Invited talk on “Perspective on Non-conventional Energy in India with special reference to Biogas Technology” at the National Seminar on Environment, Energy & Development, organized by Dept of Geography, University of Pune on 18th March 2007.
38. Delivered a popular lecture on “More crop per drop with minimum Environmental Problems” at M.D. Shreshti Samata High School, Bhosalewadi, Kolhapur on 27/2/2007 as the part National science day celebration.

Appendix-XVII

Co-curricular and extra-curricular activities carried out:

1. Worked as a Resource person for three Refresher courses conducted by this Department.
2. Worked as Internal Expert Assistant, Examiner and Moderator for M.Sc. Theory and practical exams and D.E.P.M. examinations.
3. Actively engaged in conducting All Alumni functions of Department.
4. Actively participated in different activities of 'DEVRAAI' the NGO working on environmental issues.
5. Worked as a member of subcommittee scheduled to prepare syllabus for B.Sc. Environmental Science for Shivaji University, Kolhapur, 2006.
6. Worked as Sr. Supervisor for PG annual examinations, Shivaji University, Kolhapur.

Appendix-XVIII

NSS, NCC and Scout & Guides

7. Completed two years N.S.S. course as a General Group leader.
8. Attended N.S.S. special training camp at Hiraj from Nov. 20 to Nov. 29, 1988.
9. Attended N.C.C. annual training camp from Nov. 27, to Dec. 8, 1985 held at Soregaon.
10. Attended N.C.C. annual training camp from Nov. 14, to Nov. 23, 1988 held at Barshi.

11. Completed three years Bharat Scout and Guide course as General Group leader.
12. Passed N.C.C.'B' Certificate from 9 Mah. BN.
13. Worked as Programme Officer for PG.NSS Unit, Shivaji University, Kolhapur for year 2005-06 and 2006-07.
14. Conducted workshop on 25th and 26th 2006 at Kanneri on Youth Ambassador for health and sanitation, sponsored by Dept. of Water Supply and Sanitation, Govt. of Maharashtra.
15. Formed first Disaster Management cell in 2005 and participated in help and relief camp at Shirol for flood affected people.
16. Attended 'Group Workshop on Water Science Matter all Users' held at Hotel woodland, Kolhapur organized by Dept. of Irrigation, Govt. of Maharashtra on 24/11/2006.
17. Contributed and actively promoted in successful participation of NSS volunteers in following events/activities:
 1. RD Paryde
 2. SRD Paryde
 3. Ten various camps
 4. Avishkar winning participation in 2006-07 &
 5. Delhi-Mega-Meet on behalf of 150th Anniversary of First Freedom battle held from 3rd May to 12th May, 2007.

Appendix-XIX

Sports

1. Secured highest position in five Km running competition held at P.G. level in academic year 1992.
2. Secured sixth position in open Mini Marathon of 21 Km. Running competition conducted on the occasion of Shahu Jayanti in Kolhapur.
3. Member of Kho-Kho winner team at Post Graduate level in 1991.

Appendix-XX

Essay & Elocution and other competitions

1. Winner of more than six prizes in different elocution competitions and four prizes in essay competitions at various levels.
2. Secured second position in story telling competition at P.G. level in 1992.
3. Secured second position in story telling competition at P.G. level in 1991.

Appendix-XXI

Memberships and Life Memberships

1. Life member, Environmental Conservation Journal, Haridwar, U.A. India.
2. Life member, Indian Science Congress, Kolkatta, India.
3. Life member, The Society for Science of Climate Change and Sustainable Environment (SSCE).
4. Life member, Chh. Shahu Social Pratishthan for Environment and Social Development, Kolhapur.
5. Life Member of Deccan Geographical Society, Pune.
6. Life member of International Academy of Physical Sciences, Allahabad.
7. Life member of Hydrology Association of Maharashtra. (2006 onward) Nashik.
8. Life member of International Academy of Physical Sciences, Allahabad.
9. Founder member of M.Sc. Alumni Association of this Dept.
10. Founder member of "Bharari Mitra Mandal" in Sangameshwar College, Solapur.
11. Member of Local organizing committee for TNSC-93 organized at Shivaji University between Jan. 3 to 5, 1993.
12. Member of Local organizing committee for National Meet on SFWD organized at Shivaji University on Dec.2, 1993.

13. Member of Local organizing committee for CRET organized at Shivaji University on 18th and 19th Nov., 1994.
14. Member of Local organizing committee for Energy Festival organized at Shivaji University on 18th and 19th Nov., 1994.
15. Member of Chemoflage Nature Club during the Years 1990-92.
16. Member of Sankalp-2000 for Certificate Distribution Committee.
17. Member of Sankalp-2000 for Stage arrangement Committee.
18. Member of Sankalp-2000 for Elocution Committee.
19. Member of Sankalp-2000 for Cultural Committee.
20. Member of Sankalp-2000 for Poster presentation Committee.
21. Member of Sankalp-2000 for Quiz Committee.
22. Member of Local Organizing Committee for COURT-2000.
23. Member of Local Organizing Committee for National Science Day Exhibition -2000.
24. Member of Sankalp-2001 for Stage Arrangement Committee.
25. Member of Sankalp-2001 for Elocution Committee.
26. Member of Sankalp-2001 for Cultural activities Committee.
27. Member of Sankalp-2001 for Poster presentation Committee.
28. Member of Local Organizing Committee for COURT-2001.
29. Member of Local Organizing Committee for National Science Day Exhibition -2001.
30. Member of Sankalp-2002 for Elocution Committee.
31. Member of Sankalp-2002 for Poster presentation Committee.
32. Member of Local Organizing Committee for COURT-2002.
33. Member of Local Organizing Committee for National Science Day Exhibition -2002.
34. Member of Local Organizing Committees for National Science Day Exhibition -2003.
35. Member of Sankalp-2003 for Elocution Competition Committee.
36. Member of Local Organizing Committee for the Workshop on " Water:A Scare and Sacred Resource" organized by Dept. of Environmental Science.
37. Member of Local Organizing Committee for the Public Hearing organised by Dept. of Environmental Science.
38. Member of certificate distribution and Stage arrangement committee, NSD, 2004.
39. Member of poster committee, NSD, 2004.
40. Member of Quiz competition committee, NSD, 2004.
41. Member of Elocution competition committee, NSD, 2004.
42. Member of Quiz competition committee, NSD, 2005.
43. Member of Elocution competition committee, NSD, 2005.
44. Member of Stage arrangement committee, NSD, 2006.
45. Member of Coordination and organizing committee, NSD, 2006.
46. Chairman of Quiz competition committee, NSD, 2006.
47. Member of Quiz competition committee, NSD, 2007.
48. Member of Popular lecture committee, NSD, 2007.

Appendix-XXII

Other activities

1. Worked and led as volunteer for getting donated Ganesh idol and ecofriendly disposal during the Ganesh festival at Rajaram tank in Kolhapur from year 2001 to 2006.
2. Led the team for population count during Ganesh rally management.

3. Worked as examiner for assessment of ecofriendly decoration in Ganesh festival celebration for the award by WWF for nature, India, Kolhapur.
4. Worked as organizing member for Plastic ban rally, Energy conservation rally, Book rally and other public awareness rallies organized by the department of Environmental Science and Shivaji University, Kolhapur.
5. Worked as Secretary of Science Students Association in academic year 1988-89 at Sangameshwar College, Solapur.
6. Worked as reporter in daily Tarun Bharat at Solapur for Bharari Section in year 1988-89.
7. Worked as Chief editor of 'Sanvadini', a weekly wall paper at Sangameshwar College, Solapur.
8. Worked as Chief Editor of 'Paryavaran Mitra', a weekly wall paper at Department of Environmental Science, Shivaji University, Kolhapur during the academic years 1990-92.
9. Organized and actively participated many social and cultural programs at various levels.
10. Participated in Youth Festival-1989 in one act play and in extempore elocution competition held at Shivaji University, Kolhapur.
11. Actively participated in National Meet on SFWD.
12. Attended Marathi Science Parishad at Sakhrle, Dist Satara between Dec. 25 to 28, 1993.

Appendix-XXIII

Special Training Programs/Workshops attended

1. Attended the **Training** programme 'Understanding EIA: From screening to decision making' during 25th Oct to 29th Oct 2010, held at 41, Tughlakabad Institutional area, New Delhi.
2. Attended workshop Department of Science & Technology camp organized for the INSPIRE camp organizers held on 23rd September, 2010 organized at YASHADA, Pune.
3. Attended a silver jubilee workshop on Non-conventional Energy on 26th July, 2008 held at Department of Mechanical Engineering, MIT, Pune.
4. Attended **workshop** on 'water and Distribution' held at KIT, Kolhapur in 2003.
5. Attended **Workshop** on 'Patents & Awareness' held at Shivaji University, Kolhapur in 2003.
6. Attended WWF **workshop** on Bird watching at Malvan on 14th and 15th Feb., 1991.
7. Attended Family Planning Association's youth **Leadership camp** at Solapur in Sep. 1989.
8. Attended Family Planning Association's Special **Training Camp** at Solapur in Dec. 1989.
9. Attended All India Peoples Science Network, Govt. of India, **Nature-Science Education camp** at Solapur between Dec. 4-6, 1988.
10. Attended Y.C. Pratisthan's Youth **Leadership Camp** at Karad in 1989.
11. Attended **Orientation Program** at Academic Staff College, Pune from 8th Nov. to 5th Dec., 1993.
12. Attended the **Training** Course on 'Charcoal Making process from Sugar cane trash' at ARATI, Phaltan.
13. Attended special **short course** for one week on Environmental Management and Legislation held at Mumbai in 2003.
14. Coordinated a training workshop sponsored by Water Supply and Sanitation Department, Government of Maharashtra on "Village Panchayat Capacity Building" at Kambalwadi from 7th Nov. 2005 to 14th Nov. 2005.
15. **Coordinated** the Nirmal Gram Evaluation **consultancy** of 86 villages, of worth Rs. 1,72,000/- in academic year 2005-06.
16. **Coordinated** the Nirmal Gram Evaluation **consultancy** of 17 villages, of worth Rs. 32,000/- in academic year 2006-07 with the NSS PG unit.
17. Attended the **workshop** on "Capacity Building of Key Resource Centers" held at YASHADA, Pune from 03/-5/2005 to 05/05/2005.

18. Attended the **workshop** on “Total Sanitation Campaign” held at CSV, Wardha from 10/-01/2005 to 11/01/2005.
19. Attended one day preparatory **workshop** on sanitation at YASHADA, Pune on 4th July, 2005 for setting the learning forum.
20. Completed NSS annual training on the capacity of Programme Officer camp on University campus from 10th to 19th Nov., 2005.
21. Completed NSS annual training on the capacity of Programme Officer camp on University campus from 20th to 29th Nov., 2006.
22. Attended a one day **workshop** on “Patent awareness” held on 13th Dec. 2002 at Shivaji University, Kolhapur.
23. Attended the National hearing held at Kolhapur on Western Ghats organized by Department of Environmental Science.

Appendix-XXIV

Activities concerning corporate:

1. Actively participated in framing new M.Sc. Syllabus implemented from academic year 2003-03.
2. Actively involved in framing Syllabus for Diploma in Environmental Protection and Management.
3. Actively involved in framing Syllabus for Certificate course started by Dept. of Adult Education.
4. Conducted NET/SET remedial coaching and Guidance for NET/SET in Environmental Science in the Department since 2002.
5. Coordinated the decoration and arrangement responsibilities of Book procession ceremony on behalf of Book fare on 8th Dec. 2006.
6. Coordinated the decoration and arrangement responsibilities of Dasara Mahotsav procession ceremony.
7. Worked as Examiner for practical and theory paper in the years 2004-2007 for M.Sc. Environmental Science, PG centers, Nagpur University.
8. Worked as Sr. Supervisor for PG annual examinations in the years 2004-2006 Shivaji University, Kolhapur.
9. Worked as paper setter for P.G. (M.Sc.) Environmental Science, Kuvempu University., Shimoga District.
10. Worked as paper setter and Examiner for practical in the years 2004-2007 for M.Sc. Environmental Science, PG centers, Nagpur University.
11. Worked as paper setter for paper for M.Sc., (I and II) semester I and III.
12. Worked as paper setter for paper for M.Sc., (I and II) semester II and IV.
13. Worked as external examiner for practical examination, M.Sc. II at Deogiri College, Aurangabad on 24/04/2009.
14. Assessed answer books of M.Sc. Environmental Science examination, March/April 2009.
15. Worked as external examiner for practical examination, M.Sc. II, pract. II at S.P. College, Chandrapur from 19/03/2009 to 20/03/2009.
16. Worked as external examiner for practical examination, M.Sc. I at Deogiri College, Aurangabad on 05/05/2009.
17. Worked as external examiner for practical examination, M.Sc. I at S.B. College, Aurangabad on 06/05/2009.
18. Re-Assessed answer books of M.Sc. I under the provision of re-addressable for Oct. and April, 2008, and Oct. and April 2009.