



## **RESUME**

**Name: Dr. (Mrs.) Niranjana Sunil Chavan**

**Designation:** Professor

**Date of birth:** 04<sup>th</sup> May 1959

**Address for correspondence:** -Department of Botany, Shivaji University, Kolhapur-416 004.

**Permanent Address:** -107/3, 'Muchkund' R. K. Nagar, Kolhapur-416 013.

**Telephone No.:**0231-2609157 (Office)

0231-2636494 (Resi.)

**E-mail:** niranjanac\_2006@yahoo.com

nsc\_botany@unishivaji.ac.in

### **Academic Qualifications:**

<b>Examinations</b>	<b>Name of the Board/University</b>	<b>Year of Passing</b>	<b>Percentage of marks obtained</b>	<b>Division/ Class/Grade</b>	<b>Subject</b>
S.S.C.	Bangalore Board	1974	68%	First class	Marathi, Maths, Science
H.S.C.	Bangalore Board	1976	62%	First class	Physics, Chemistry, Biology
B.Sc.	Karnataka University, Dharwad	1979	67%	First class	Botany
M.Sc.	Shivaji University, Kolhapur	1981	68.7%	First class	Botany
Other examination, if any	---	--	--	--	--

**Teaching experience:****P. G. Classes:** 28 years **U. G. Classes:** 2.6 years**Guided students:****M. Phil.:**03**Ph.D.:** 15**Working for Ph. D.:** 02**Working for M. Phil.:-** Nil**Conferences/Symposium/Workshops:** 53 attended**Publications:**

<b>International</b>	<b>National</b>	<b>Conference Proceedings</b>
51	56	47

**Academic Staff College Orientation /Refresher Course:**

<b>Name of the course/ Summer School</b>	<b>Place</b>	<b>Duration</b>	<b>Sponsoring Agency</b>
<b>Orientation course</b> organized by Academic staff college, Goa University.	Department of Education, Shivaji University, Kolhapur	1 Nov. to 28 Nov. 1991	Sponsored by U.G.C. New Delhi.
<b>Refresher course in Botany</b>	Department of Botany, Shivaji University, Kolhapur.	1 Nov. to 4 Dec.1994	Sponsored by U.G.C. New Delhi.
<b>Refresher course in Botany</b>	Department of Botany, Shivaji University, Kolhapur.	20 Jan. to 10 Feb. 1997	Sponsored by U.G.C. New Delhi.
<b>Refresher course in Botany and Microbiology</b>	Department of Botany, Shivaji University, Kolhapur.	1 <sup>st</sup> to 22 <sup>nd</sup> March 2000	State Gov. of Maharashtra Crash programme

### Special Training courses:

1 <sup>st</sup> May to 14 <sup>th</sup> May 1985	UNDP/UNESCO Special training course on Mangrove Eco-physiology held at AIMS, Australia.
3 <sup>rd</sup> March to 7 <sup>th</sup> March 1987	INDO-USSR Bi-National workshop on photosynthesis held at INSA, New Delhi.
20 <sup>th</sup> Aug. to 5 <sup>th</sup> Sep. 1989	Remote sensing and its applications held at IIT, Pawai, Mumbai.
25 <sup>th</sup> May to 29 <sup>th</sup> May 1992	Wetland conservation and Management sponsored by MoEF, New Delhi.
2 <sup>nd</sup> Dec. to 23 <sup>rd</sup> Dec. 1992	RFLP's in plant biotechnology DBT sponsored workshop held at NCL, Pune.
1 <sup>st</sup> March to 10 <sup>th</sup> March 1993	Training Programme on management of Mangrove Ecosystem by CODAP CELL held at Andhra University, Vishakhapatnam.
7 <sup>th</sup> March to 13 <sup>rd</sup> March 1998	Faculty Development programme of MCED sponsored by DBT
18-25 Aug 2016	GIAN programme on Evolutionary Morphology of Land plants. Sponsored by Ministry of Human Resources, Govt. of India.

### Memberships:

- Mangrove Society of India:-Life Member
- TEAK Nature Club:-Life Member
- IWSA:-Life Member & Convener (Kolhapur Branch)
- Life member of Marathi Vigyan Parishad
- Nature & Pollution:-Life Member & Member of Editorial Advisory Board
- Nature, Environment & Pollution Technology- Life Member
- Kolhapur Public School:- Management Member
- Mangrove Society of India: Executive body member(Maharashtra)
- Life member of Society Of Cytologists and Geneticists
- Life member of Saguna Charitable Trust, Pune

**Research Project carried out:**

<b>Sr. No.</b>	<b>Title</b>	<b>PI/Co-PI</b>	<b>Name of the funding agency</b>	<b>Duration</b>	<b>Amount</b>
<b>1</b>	Survey of wetlands of Maharashtra. L. J. Bhosale, N.S. Chavan, A. B. Sabale	Co-PI	U.G.C. New Delhi	Aug. 1992 to 1994	28,000/-
<b>2</b>	Conservation of wild cucurbits.	PI	U.G.C. New Delhi	Jan. 1998 to 2001	10,000/-
<b>3.</b>	<i>In-vitro</i> culture techniques of <i>Momordica</i> sp.Roxb.	PI	U.G.C. New Delhi	May 2001 to 2003	2,94,000/-
<b>4.</b>	IRB Consultancy project (All Faculty Members)	Co-PI	Integrated Road Development company	December 2008	5.50 lacs
<b>5</b>	Consultancy project on Mangrove conservation. L. J. Bhosale	Scientist Expert	MoEF, ZINDAL	April 2009	22 lacs
<b>6.</b>	SAP-DRS-I (All Faculty Members )	Co-PI	U.G.C. New Delhi	2007-2012	54 lacs
<b>7.</b>	Conservation of medicinal plants from Satara, Sangli & Kolhapur districts of South Maharashtra (All Faculty Members )	Co-PI	RGSTC	2009-2012	27,6000/-
<b>8.</b>	SAP-DRS-II (All Faculty Members )	Co-PI	UGC, New Delhi	2012-2017	70 lacs
<b>9.</b>	IPLS (All Faculty Members )	Co-PI	DBT	2012-2017	4.1 Corers

10.	Isolation & characterization of starch from Mangroves	PI	UGC, New Delhi	July 2012-2015	12,88,300/-
11.	Conservation of rare & endangered species of Mangroves	PI	Forest Dept., Mumbai	April 2013- Dec.2013	7,50,000/-
12.	<i>In vitro</i> culture & secondary metabolite studies in <i>Phyllanthus reticulatus</i> P. D. Shirgave, N. S. Chavan	Co-PI	U.G.C., New Delhi	May 2012-2014	1,30,000/-
13.	Conservation of rare and endangered species of Mangroves	PI	Forest Department, Mumbai	Apr. 2012 to March 2013	2,50,000/-
14.	Establishment of field gene bank of RET mangrove species in Sindhudurg district, Maharashtra.	PI	Forest Department, Mumbai	June 2014 to Jan. 2016	11,00,000/-
15.	Consultancy Taxonomic expertise on mangrove spp. of Maharashtra state	Expert	Institute of Wood Science and Technology, Bengaluru	March 2017- March-2019	

#### Invited Lectures/ Talks:

Sr. No.	Title of Lecture / Academic Session	Title of Conference / Seminar etc	Organized by	Whether international /National
1.	Conservation of critically endangered species of mangroves along the coast of Maharashtra	International Workshop on Mangrove Conservation in India 26-27 <sup>th</sup> July 2013	Gujarat Ecology Commission	International

2.	Mangrove ecosystem And Biodiversity conservation	National seminar Environmental Management & Biodiversity Conservation 17-18 <sup>th</sup> Jan. 2014	Department of Botany, Zoology & Chemistry, AMA & NCS College, Rajapur	National
3.	Indian Mangroves	Environmental Conference-2014 17-18 <sup>th</sup> Feb. 2014	Department of Environmental Science, Central University, Kerala	National
4.	Mangrove conservation and Management	National Seminar on conservation of trees: Perspectives and Strategies	Bhavan's College Andheri, Mumbai 2 <sup>nd</sup> Feb 2016	National
5.	Mangrove Conservation	One day workshop on Plant conservation through people's participation	Department of Botany, Shivaji University, Kolhapur 14 <sup>th</sup> March 2016	Regional
6.	Mangrove Biodiversity and Regeneration Techniques	Science Talk	Hislop College, Nagpur 22 <sup>th</sup> March 2016	State level
7.	Biophysics: An innovative of science	National Seminar on Recent trends in Biophysics	Devchand College, Arjunnagar	National Level
8.	Mangrove Biodiversity and Climate change	Lead Lecture	R. L. S. Institute Belagavi, Karnataka.	National Level
9.	Mangroves resources- status, treats and opportunities	Plenary Lecture	R. P. Gogate College of Arts and Science and R.V Joglekar College of Commerce Ratnagiri. Date: 2-3 Feb.2015	National Level
10.	Techniques for raising Mangroves seedling	Lead Lecture	Workshop on Mangrove Conservation organized by Department of Forest, Mangrove cell Mumbai	National Level

			Date: 23-25 Feb. 2015 Nagothane	
11.	Mangrove conservation and management	Science Talk	Bhavan's College, Andheri Mumbai 2 Feb. 2016	National Seminar Conservation of Trees
12.	Plant Conservation through people's participation	Lead Lecture	Department of Botany, Shivaji University, Kolhapur	National Level D mar. 2016
13.	The role of students and teacher in conservation of biodiversity	Lead Lecture	Department of Botany, Shivaji University, Kolhapur	National Level Date 30 Jan. 201
14.	Mangrove plantation Techniques	Lead Lecture	Workshop organized by Department of Botany and Forest Department, Govt. of Maharashtra	National Level Date: 16-17 Oct. 2015
15.	International day for biological diversity	Lead Lecture	Department of Botany Shivaji University, Kolhapur	International Lev Date: 22 May 20
16.	Mangrove ecosystem and conservation	Science Talk	Department of Botany, Hislop College, Nagpur	National Level Date: 22 Mar. 20
17.	Biotechnology day celebration Mangrove potentialities and prospects	Lead Lecture	Department of Biotechnology, Shivaji University, Kolhapur.	National Level Date: 20 Jan. 201
18.	Wetlands topic	Guest speaker	On the occasion of celebration of International wetland day, Department of Botany, P. D. V. P. Mahavidyalay Tasgoan, Sangli.	International Date:2 Feb, 2017
19.	Identification of plants of western Ghats	Lead Lecture	Department of Botany, Shivaji University, Kolhapur	National Level Date: 17 Mar. 20
20.	Biodiversity of mangrove ecosystem	Lead lecture	Dr. BSKKV, Dapoli	Regional Seminar 12 <sup>th</sup> & 13 <sup>th</sup> Sept. 2017

21.	Mangrove ecosystem and conservation attempts	Lecture	Department of Botany, Shivaji University, Kolhapur organized by BSI, Pune	10 <sup>th</sup> March, 2018
22.	Mangrove ecosystem	Lecture	Department of Botany, Shivaji University, Kolhapur	28 <sup>th</sup> July, 2018 On the occasion of celebration 'International Mangrove Day'

## PUBLICATIONS

### NATIONAL:

- 1) N. G. Mulik and L. J. Bhosale (1983). Leaf anatomy and its relation to physiology of leaf in mangroves. *Proc. Nat. Symp. Adv. Front. Pl. Sci.* 248.
- 2) N. G. Mulik and L. J. Bhosale (1986). Autecological studies on the seeds of *Acanthus illicifolius* Linn. *The mangroves* Proc. Nat. Symp. Biol. Util. Cons. Shivaji University Kolhapur (Ed. L. J. Bhosale) 210-213.
- 3) N. G. Mulik and L. J. Bhosale (1986). Comparative study of Sodium, Potassium, Calcium and Chloride from the seeds and leaves of *Acanthus illicifolius* from different localities. *The mangroves* Proc. Nat. Symp. Biol. Util. Cons. Shivaji University Kolhapur (Ed. L. J. Bhosale) 214-217.
- 4) A. B. Sabale, N. G. Mulik and L. J. Bhosale (1986). Malic enzyme and malate dehydrogenase activities from the leaves of some mangroves. *The mangroves*. Proc. Nat. Symp. Biol. Util. Cons., Shivaji University Kolhapur. (Ed. L. J. Bhosale) 287-290.
- 5) S. S. Sathe, S. V. Deshpande, N. G. Mulik and L. J. Bhosale (1986). Effect of endogenous salt leaves on the chlorophyll contents of the leaves of *A. officinalis* Linn. *The mangroves*. Proc. Nat. Symp. Biol. Util. Cons., Shivaji University Kolhapur (Ed. L. J. Bhosale) 297-299.
- 6) N. G. Mulik and L. J. Bhosale (1987). Leaf behavior in *Acanthus illicifolius*. *Proc. Indian. Nat. Sci. Acad.* INSA Publication: B53: 557-560.
- 7) N. G. Mulik (1987). Salt secretion in response to  $\beta$ -alanine foliar spray in *Acanthus illicifolius* L. *J. Mar. Boil. Ass. India*, 29(1-2): 376-378.
- 8) N. G. Mulik and L. J. Bhosale (1988). A new method for preservation of mangrove specimen. *Geobios New Reports*. 57: 172-173.



- 9) N. G. Mulik and L. J. Bhosale (1989). Flowering phenology of mangroves from the west coast of Maharashtra. *Bombay Nat. Hist. Soc.* 86(3): 355-359.
- 10) N. G. Mulik and L. J. Bhosale (1989). Estuaries and Biomass energy. In: Biomass Energy (Eds. Pawar, S. H., Bhosale, L. J., Sabale, A. B. and Goel, S. K.). 64-72.
- 11) N. G. Mulik and L. J. Bhosale (1990). Mangroves species as ecological indicators in estuarine ecosystem. *J. Aquor.* 3(1): 15-18.
- 12) L. J. Bhosale and N. G. Mulik (1991). Strategies of seed germination in mangroves. *Proc. Int. Seed Symp.*, Jodhpur, India (Eds. D. N. Sen and S. Mohammad) 201-205.
- 13) N. G. Mulik (1991). The mangroves and water pollution in estuaries. 2<sup>nd</sup> Annual session of the Academy of Environmental Biology. *Environmental Pollution and Resources of Land and Water* 299-304.
- 14) R. D. Tare and N. G. Mulik (1991). Studies on *Avicennia* species. *Proc. Nat. Symp. Cons. Managmt. Mangroves*, 185-188.
- 15) N. G. Mulik and L. J. Bhosale (1991). Mangroves along Bhatye estuary- The area and the species. *Proc. Nat. Symp. Cons. Managmt. Mangroves*, 100-103.
- 16) L. J. Bhosale and N. G. Mulik (1991). Endangered mangrove areas of Maharashtra. *Proc. Symp. Sing. Mangroves*, Pune.
- 17) L. J. Bhosale and N. G. Mulik (1992). Physiology of mangroves. In: Tropical Ecosystems: Ecology and Management. (Eds. K. P. Singh and J. S. Singh), 315-320.
- 18) N. G. Mulik and L. J. Bhosale (1995). Free amino acids and salt tolerance in *Acanthus ilicifolius* Linn. *Bulletin of pure and applied sciences.* 14B (2): 45-48.
- 19) N. G. Mulik and S. G. Patil (1995). Seed Germination in *Terminalia arjuna*. *Journal of non-timber forest products*, 2(1/2): 67-69.
- 20) L. J. Bhosale and N. G. Mulik (1995). Environment Adaptive Biology: The Mangroves, *Environment Adaptive Biol. of plants* pp. 143-150. Prof D. N. Sen Commemoration Volume (Ed. D. D. Chawan), Scientific Publisher, Jodhapur.
- 21) N. G. Mulik (1996). Leaf behavior in some mangrove species. *Journal of environment and pollution*, 3(1): 17-20.
- 22) N. G. Mulik and R D. Tare (2000). *Avicennia* pneumatophores-an ecological adaptation. *Bulletin of pure and applied sciences.* 19B (2): 141-145.
- 23) N. S. Chavan (Mulik), M. V. Gokhale and A. B. Telave (2001). Impact of various stresses of Achara. *Proceedings of. International Congress of Chemistry and Environment.* 45-48.
- 24) N. S. Chavan (Mulik), M. V. Gokhale and A. B. Telave (2002). Detection of symbiotic association of *Rhizobium* with non-legume true mangrove species. *Indian J. Environ. And Ecoplan.* 6(1): 163-166.

- 25) M. V. Gokhale and N. S. Chavan (Mulik) (2002). Germination and Growth performance of *Xylocarpus granatum* Koen. *Proceedings of the National Seminar on Creeks, Estuaries and Mangroves Pollution and Conservation*, 28<sup>th</sup> to 30<sup>th</sup> November, 2002. Thane (Ed. Goldin Quadros) pp. 237-239.
- 26) A. B. Telave and N. S. Chavan (Mulik) (2002). Studies on composition of Starch and Amylase activity in three *Sonneratia* species. *Proceedings of the National Seminar on Creeks, Estuaries and Mangroves Pollution and Conservation*, 28<sup>th</sup> to 30<sup>th</sup> November, 2002. Thane (Ed. Goldin Quadros) pp. 247-248.
- 27) M. V. Gokhale and N. S. Chavan (2003). A report on mangrove associates of Achara estuary. *Seshaiyana*, 11(1): 10.
- 28) M. V. Gokhale and N. S. Chavan (2003). Root knot disease of *Xylocarpus granatum* Koen. *Seshaiyana*, 11(2): 4.
- 29) M. V. Gokhale, A. B. Telave and N. S. Chavan (2004). Inhibition of tooth plaque bacteria by the latex of *Jatropha curcas* L. *Trajectory* 12(1): 25-28.
- 30) V. S. Patil and N. S. Chavan (2004). Studies on metabolic products in *Cucumis setosus* Cogn. *Geobios*. 31: 169.
- 31) N. S. Chavan (Mulik), M. V. Gokhale (2005). Encroachment in Achara mangrove of Maharashtra. *Seshaiyana*, 13(2): 7.
- 32) A. B. Telave and N. S. Chavan (2006). Starch content in different parts of *Sonneratia caseolaris* L. Engl. *Seshaiyana* 14(1): 5.
- 33) N. S. Chavan (Mulik), M. V. Gokhale (2006). A book review on Field guide to the mangroves of Maharashtra, *Seshaiyana*, 14(1): 15.
- 34) N. S. Chavan, M. V. Gokhale, and A. B. Telave (2007). Some facts regarding the mangroves of Maharashtra. In: Sustainable Environmental Management, Daya Publishing House, Delhi.
- 35) M. V. Gokhale and N. S. Chavan (2007). Sociobiological Survey of Turmeric (*Curcuma longa* L.) cultivation in Sindhudurg district of Maharashtra. *Indian J. Environ. And Ecoplan.* 14(3): 601-602.
- 36) M. V. Gokhale and N. S. Chavan (2008) Observations on the quality of starch from Banana Pseudo-stem. *Geobios*. 35: 149-152.
- 37) M. V. Gokhale, S. V. Toro, S. C. Patil and N. S. Chavan (2008) Effect of Vehicular Pollution on shoot height and leaf structure in *Nerium indicum* Mill. *Bioinfolet*. 5(2): 143-144.
- 38) S. B. Jadhav, N. S. Chavan (2008) Study of Phytoplankton population from water resources of Jotiba (Wadi-Ratnagiri), Maharashtra. *Nature Environment and Pollution Technology*. 8(1): 37-42.

- 39) Alaka Patil and Niranjana Chavan (2009). Impact of availability of water from man made reservoirs on agricultural productivity and fishery: A case study of Khanapur tahsil, district Sangli (Maharashtra). *Bulletin of Pure and Applied Sciences* Vol. 28B (No.1-2) P.21-26. (ISSN- 0970-4612)
- 40) A. M. Mali and N. S. Chavan (2009) Studies on morphometric variations and distribution pattern of proteins in wild cucurbit (*Cucumis trigonus*). *Biotechnology*. 3(4): 197-200.
- 41) A. B. Telave and N. S. Chavan (2009). Studies on some properties of starch isolation from *Sonneratia* species. *Indian Journal of Plant Physiology* Vol. 14, No. 1 (N.S.) pp. 28-33 (Jan.-March, 2009)
- 42) S. S. Shaikh, M. V. Gokhale and N. S. Chavan (2010) Nematode infestation in mangrove seedlings under nursery condition. *Bioinfolet*. 7(3): 212.
- 43) Mahesh V. Gokhale, Sajeed S. Shaikh, Prakash V. Gaikwad and Niranjana S. Chavan (2011). Effect of betel quid components on human salivary amylase. *Journal of pharmacy research* 4(8), 2636-2638. (ISSN: 0974-6943)
- 44) M. V. Gokhale, S. S. Shaikh and N. S. Chavan (2011). Floral wealth of wet coastal and associated ecosystems of Maharashtra. *Indian Journal Geo Marine Sciences* Vol. 40(5) pp. 725-730.
- 45) S. J. Jadhav and N. S. Chavan (2012). Fatty acid profile of *Luffa acutangula* var. amara. *Global Journal of Research on Medicinal Plants and indigenous medicines*. 1(8): 323-327.
- 46) Gokhale M. V., Shaikh S. S., Telave A. B. and Chavan N. S. (2012). Variation in minerals and some organic osmolytes in the leaves of mangrove *Sonneratia alba* J. Smith. and *Sonneratia apetala* Buch.- Ham. Induced due to age progression. *Journal of Cell and Tissue Research* vol. 12(2) 3245-3248. (ISSN: 0974-0910)
- 47) P. D. Patil and N. S. Chavan (2013). Fatty acids of *Rhizophora apiculata* Blume: Building blocks of industries. *Indian Journal of Pharmaceutics*. 4(2): 72-75.
- 48) Chavan N. S. (2014). New area record of some mangrove species and associates from the coast of Maharashtra, India. *Seshaiyana*. 21(2): 2-3.
- 49) Shinde A. S. and Chavan N. S. (2014). Effect of Gibberellic acid on propagation of mangrove associate *Ixora coccinea* Linn. *Seshaiyana*. 21(2): 3-4.
- 50) Rajaram S. Sawant, N. S. Chavan and S. R. Patil (2014). Survey and mapping of freshwater bodies from Gadhinglaj Tahsil of Maharashtra (India) by using GPS. *IOSR J of Environ. sci., Toxicology and Food Tech*. 8(3): 17-22.
- 51) Niranjana S. Chavan and Priya D. Patil (2015). *Barringtonia* Starch: Novel source for various applications. *Fire Journal Of Engineering and Technology*, 1(1), 1-13.

- 52) Niranjana S. Chavan (2016). The mangrove ecosystem and conservation strategies. *Vanshobha A Journal of National Society of the Friends Of the Tree*. 62-65.
- 53) Niranjana S. Chavan, N .Vasudevan, Tarnnum Mulla and Mehaboob Nadaf (2017). Mass propagation of RET mangrove species: Biodiversity Implications. *Ela Journal of Forestry and Wildlife*. Vol.6(1)322-328.
- 54) Niranjana S. Chavan, Tarnnum M. Mulla and Mehaboob D.Nadaf (2017). *Ex-situ* conservation of *Cynometra iripa* - Kostel the critically endangered mangrove species. *Seshaiyana*, 24(4).
- 55) Tarnnum M.Mulla and Niranjana S. Chavan (2017). Mangrove diversity along the coast of Ratnagiri, Maharashtra. *Current Botany*.8:123-126.
- 56) Amruta S.Shinde and N. S. Chavan (2017). Effect of pre-sowing treatment on seed germination of *Ixora coccinea* L. *Current Botany*, 8: 155-158.

#### **INTERNATIONAL:**

- 1) N. G. Mulik and R. D. Tare (1997) Variation in soil properties of *Avicennia* zone along estuaries of Ratnagiri. *J. Nature and Biosphere*, 2(2): 17-21.
- 2) N. G. Mulik and R. D. Tare (1997) *Avicennia*- An ecological perspective: *Ecol. Env. And Cons.* 3(3-4): 197-201.
- 3) P. S. Jadhav, N. G. Mulik and P. D. Chavan (1997) Allelopathic effects of *Ipomoea carnea* spp. *fistulosa* on growth of wheat, rice, sorghum, and Kidney bean. *Allelopathy Journal*. 4(2): 345-348.
- 4) N. G. Mulik and R. D. Tare (2001), Leaf behaviour in *Avicennia* species. *Nature and biosphere*, 6(1-2): 53-56.
- 5) P. D. Shirgave and N. S. Chavan (2001) *In vitro* propagation of *Momordica dioica* (Roxb.) Wild. *Asian Jr. of microbial. Biotech and Env. Sci.* 3(3): 173-175.
- 6) M. V. Gokhale and N. S. Chavan (2003), Degradation of mangrove habitat of Achara a need of rescuing, *Eco.And.Cons.* 9(1): 15-23.
- 7) P. D. Shirgave and N. S. Chavan (2004), Propagation of *Momordica dioica* (Roxb.) Wild through stem cutting. *Ad. In Plant Sci.* 17(1): 267-269.
- 8) V. S. Patil and N. S Chavan (2004) Callus induction from leaf and stem explants of *Cucumis setosus* Cogn. *Ad. In Plant Sci.* 17(1): 1-4.
- 9) M. B. Mulimani and N. S. Chavan (2007), Eco-climatic diversity of wild cucurbits in Bijapur district, North Karnataka, India. *Nature, Environment and Pollution Tech. Techno-science Publ.* 177-182.
- 10) S. B. Jadhav and N. S. Chavan (2009), Study of Phytoplankton Population from Water Resources of Jotiba (Wadi- Ratnagiri), Maharashtra. 8(1): 37-42.

- 11) S. B. Jadhav, N. S. Chavan and M. V. Gokhale (2009). Effect of ritual activity on the lentic Water resources of Jotiba (Wadi-Ratnagiri), Kolhapur District, Maharashtra. *Ecol. Env. and cons.* 15(1): 71-75.
- 12) S. V. Madhale and N.S. Chavan (2009). Ecological Status and Identification of Threat Level of *Momardica cymbalaria* Hook. F. from Some Parts of Maharashtra and Karnataka. *Int. J. for Usuf. Mngt.* 10(2): 66-70.
- 13) M. V. Gokhale, S. S. Shaikh and N. S. Chavan (2009). Ecology of *Morinda pubescens* Sm. along the estuaries of Maharashtra and Goa states of India. *The Bioscan.* 4(3): 491-493.
- 14) D. S. Patil and N. S. Chavan (Mulik) (2009). Bioefficacy of some botanicals against the sugarcane woolly aphid, *Cerato vacuna lanigera* Zenther. *Journal of Biopesticides*, 2(1): 44-47.
- 15) D. S. Patil and N. S. Chavan (2010). Repellency and toxicity of some botanicals against *Spodoptera litura* Fabrius on *Glycine max* Linn (Soybean). *The Bioscan* 5(4): 653-654.
- 16) S. S. Shaikh and N. S. Chavan (Mulik) (2010), Morphological anomalies in the species of a mangrove genus *Avicennia* L. along the coast of Maharashtra and Goa states of Maharashtra. *The Ecoscan.* 4(1): 77-80.
- 17) M. V. Gokhale, S. S. Shaikh and N. S. Chavan (2010), *Ensete Superbum* (Roxb.) Cheem: Potential Plant Species for Eco-Restoration Programme. *Int. J. for Usuf. Mngt.* 11(1): 90-93.
- 18) M. N. Desai and N. S. Chavan (2010), Antibacterial activity and phytochemical screening of *Cynometra iripa* Kostel. *Int. J. Pharma and Biosci.* 1(3): 1-4.
- 19) S. S. Shaikh, M. V. Gokhale and N. S. Chavan (2010), Seedling morphology of mangrove species of Maharashtra and Goa states of India. *Phytomorphology* 60(3-4): 77-90.
- 20) Alaka Patil and Niranjana Chavan (2010). Primary productivity studies in some freshwater reservoirs of Sangli district, Maharashtra. *Nature Environment and Pollution Technology* Vol. 9(1) PP.101-103.
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- 30) P. D. Shirgave and N. S. Chavan (2012). High frequency *in vitro* multi shoot regeneration from axillary buds of *M. dioica* Roxb. Ex. Willd. *Plant Archives*. 12(1): 295-297.
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- 35) M. N. Desai and N. S. Chavan (2013). Habitat of *Cynometra iripa* Kostel along west coast of Maharashtra. *International journal of pharmaceutical research and development*. 5(10): 1-13. (Impact Factor: 2.01)

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- 38) P. D. Patil and N. S. Chavan (2013). Rapid small-scale starch isolation technique from the mangrove species of Family Rhizophoraceae. *International J. of pharmaceutical formulation and Analysis*, 4(2): 113-117.
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- 41) Rajaram S. Sawant and Niranjana S. Chavan (2015). Morphometric features and hydrology of Kadgaon fresh water reservoir, (M.S.) India. *European Academic Research* Vol.3 (4):3726-3739. (Impact factor-3.4546) (ISSN-2286-4822)
- 42) Aruna M. Mali and Niranjana S. Chavan (2016). *In Vitro* rapid regeneration through direct organogenesis and *ex-vitro* establishment of *Cucumis trigonus* Roxb.- An underutilized pharmaceutically important cucurbit .*Industrial Crops and Products*.83(2016) 48-54. (Impact factor-2.837)
- 43) Santosh Jadhav and Niranjana Chavan (2013), Comparative Account of Seedling Morphology of *Luffa* Species. *International Journal of Science and Research*. Volume 5 Issue 7, 1124-1126. (Impact factor-6.391)(ISSN(Online): 2319-7064)
- 44) Patil Kamalakar H, Toro Sunita V, Gokhale Mahesh V and Chavan Niranjana S. (2015). *DOLICHANDRONE SPATHACEA (L.F) K. SCHUM: A THREATENED BIOLOGICAL ENTITY ON THE COAST OF MAHARASHTRA*. Volume 4, Issue 9, 2245-2249. (SJIF Impact factor-5.990)(ISSN 2277-7105)
- 45) Tarannum Mulla and N. S .Chavan (2016), Socio demographic profile of fishermen communities of selected mangrove sites from Ratnagiri coast. *International journal of Fisheries and Aquatic studies*. 4(1):209-213 (Impact factor 0.549)
- 46) Santosh Jadhav, Niranjana Chavan (2016). Comparative account of seedling morphology of *Luffa* species *International journal of Science and Research* Vol. 5 (7)1124-1126. (Impact factor-6.391.)

- 47) Mrunalini N. Desai and Niranjana S. Chavan (2017). Energy budget of a mangrove species: *Cynometra iripa*. *International Journal of Researches in Bioscience, Agriculture and Technology*. Vol.5, special issue (3), 255-257.
- 48) Shakila P. Maldar and N. S. Chavan (2017). Water quality assessment of takve lake of Shirala taluka, Sangli district. *Aarhat Multidisciplinary International Education Research Journal*. (Impact factor- 5.18) (ISSN 2278-5655)
- 49) S. V. Madhale and N. S. Chavan (2018). In vitro conservation of *Momordica cymbalaria* Hook. f by leaf culture. *International journal of Trends in Research and Development* Vol. 2, Issue 3:882-886. (ISSN 2456-6470).
- 50) S. V. Madhale and N. S. Chavan (2018). In vitro conservation of *Momordica cymbalaria* Hook. F. *World Journal of Pharmaceutical Research*. Vol. 7, Issue,7.(SJIF Impact factor-8.074) (ISSN 2277-7105).
- 51) Jadhav Santosh and Chavan Niranjana (2018) Allelopathic effect of fruit extract of *Luffa acutangula* var. Amara on germination and growth performance of different seed groups *International journal of basic and applied research*. Vol.8(7):97-108.(ISSN 2249-3352) (P) 2278-0505(E) Cosmos Impact Factor 5.86

**Paper Presented in Academic Conferences/Seminars/workshop:**

Sr. No.	Title of the paper presented	Title of Conference / Seminar	Organized by	Whether international/ National/State/ Regional/College or University level
1.	Studies on <i>Avicinnia</i> species	National seminar on conservation and management of mangrove ecosystems w.r.t. Sunderbans Date:6-8 Dec. 1991	Krishi Bhavan Vidhan Sabha, Kolkatta	National (Oral)
2.	Green belt development-An ecotechnological approach	Seminar on biomass energy Date: 5-6 March & 18 <sup>th</sup> March 1996	Department of Physics, SUK and UGC, New Delhi	National (Oral)
3.	Propagation techniques of	International conference on women in science	IWSA, Mumbai	International (Oral)



	<i>Memordica dioca</i>	Date: 8-11 Oct. 1998		
4.	Standardization of protocol for soil and water analysis	Workshop for Botany teachers on UGC model curriculum Date: 15 <sup>th</sup> Sept. 2005	Y.C. College, warananagar	Regional (Oral)
5.	Morphometric variations in <i>Cucumis trigonus</i>	National symposium on issues and challenges on environmental managements vision 2025 Date: 17 <sup>th</sup> -19 <sup>th</sup> Feb. 2006	NBRI, Lucknow	National (Oral)
6.	<i>In vitro</i> culture techniques in wild cucurbits	National seminar on plant resources of western ghats, ecology, economics and conservation Date: 7-8 Dec. 2006	Karnataka Biodiversity Board	National (Oral)
7.	Ecotechnological applications in sustainability, management and conservation of mangroves	Workshop on recent trends in biotechnology Date: 28-29 March 2007	LBS, Satara	National (Oral)
8.	Conservation of critically endangered mangrove <i>Xylocarpus</i> and <i>Cynometra</i>	National workshop on mangroves in India/Biodiversity, protection and environmental science Date: 7-8 Feb. 2008	Institute of wood science and technology, Bangalore and MoEF	National (Poster)
9.	Assessment of Bhambarde reservoir: Case study of Khanapur tehsil	International conference on biodiversity, environment and sustainable development Date: May 2009	MoEF, New Delhi	International (Oral)

10.	A need of conservation of genus <i>Bruguiera</i> as an emergency food  N. S. Chavan & Priya D. Patil	International Symposium and XXII Annual Conference of Indian Association for Angiosperm Taxonomy-2012 Date: 28 <sup>th</sup> -30 <sup>th</sup> Oct. 2012	Department of Botany, Sant Gadge Baba Amravati University, Amravati	International  (Oral)
11.	Studies on bioresources of Ratnagiri district of Maharashtra  N. S. Chavan & Tarnnum M. Mulla	International Symposium and XXII Annual Conference of Indian Association for Angiosperm Taxonomy-2012 Date: 28 <sup>th</sup> -30 <sup>th</sup> Oct. 2012	Department of Botany, Sant Gadge Baba Amravati University, Amravati	International  (Poster)
12.	Conservation and domestication of some coastal plants  N. S. Chavan & Amruta S. Shinde	International Symposium and XXII Annual Conference of Indian Association for Angiosperm Taxonomy-2012 Date: 28 <sup>th</sup> -30 <sup>th</sup> Oct. 2012	Department of Botany, Sant Gadge Baba Amravati University, Amravati	International  (Poster)
13.	Evaluation of anti-diabetic activity of fruits of <i>Luffa acutangula</i> var. <i>amara</i>  N. S. Chavan & Santosh J. Jadhav	National Seminar on Medicinal Plants: Status & Future Date:6-7 Nov. 2012	Department of Botany, Shivaji University, Kolhapur.	National  (Oral)
14.	Medicinal Potential of mangrove species from west coast of Maharashtra	National Seminar on Medicinal Plants: Status & Future	Department of Botany, Shivaji University, Kolhapur.	National  (Poster)

	N. S. Chavan, Priya D. Patil, Amruta S. Shinde & Tarnnum M. Mulla	Date:6-7 Nov. 2012		
15.	<i>In vitro</i> regeneration of <i>Cucumis trigonus</i> Roxb.-A multipurpose wild cucurbit  N. S. Chavan & Aruna M. Mali	National Seminar on Medicinal Plants: Status & Future  Date:6-7 Nov. 2012	Department of Botany, Shivaji University, Kolhapur.	National  (Poster)
16.	Traditional medicinal uses of wild cucurbits from Bijapur district  N.S. Chavan & M. B. Mulimuni	National Seminar on Medicinal Plants: Status & Future  Date:6-7 Nov. 2012	Department of Botany, Shivaji University, Kolhapur	National  (Poster)
17.	Attended	Tools & Techniques in Molecular Systematics/ Phylogenetics  Date: 8 <sup>th</sup> -10 <sup>th</sup> Nov. 2012	Department of Botany, Shivaji University, Kolhapur	Regional
18.	Attended	A Brain-Storming Session for application of Technology for Sustainable Development in The State of Maharashtra  Date: 26 <sup>th</sup> & 27 <sup>th</sup> Nov. 2012	Rajiv Gandhi Science & Technology Commission	Regional
19.	Mangrove <i>Rhizophora</i> <i>apiculata</i> Blume: Future need of various industries	National Seminar on Recent Trends in Life Science  Date: 28-29 Jan. 2013	Department of Botany and Zoology Rajarshi Chhatrapati	National  (Poster)

	N. S. Chavan & Priya D. Patil		Shahu College, Kolhapur.	
20.	Fishery resources of Ratnagiri district  N. S. Chavan & Tarnnum M. Mulla	National Seminar on Recent Trends in Life Sciences  Date: 28-29 Jan. 2013	Department of Botany and Zoology Rajarshi Chhatrapati Shahu College, Kolhapur	National  (Poster)
21.	Study of Kasai Devi and Janai-Malai Devi sacred groves from Satara district and their significance in conserving biodiversity  N. S. Chavan & Shekhar Mohite	National conference on sacred groves as a respository for ethnomedicinal plants  Date: 2-3 Feb. 2013	Department of Botany, Rajaram College, Kolhapur	National  (Poster)
22.	Floral wealth of Achara-A sacred village on central west coast of India  N. S. Chavan M. V. Gokhale & S. S. Shaikh	National conference on sacred groves as a respository for ethnomedicinal plants  Date: 2-3 Feb. 2013	Department of Botany, Rajaram College, Kolhapur	National  (Poster)
23.	<i>Ixora coccinea</i> Linn. : A potential coastal ethnic plant  N. S. Chavan & Amruta S. Shinde	National conference on sacred groves as a respository for ethnomedicinal plants  Date: 2-3 Feb. 2013	Department of Botany, Rajaram College, Kolhapur	National  (Poster)
24.	Nutritional assessment of fruits of	National conference on sacred groves as a	Department of Botany,	National

	<p><i>Luffa acutangula</i> var. <i>Amara</i></p> <p>N. S. Chavan &amp; Santosh J. Jadhav</p>	<p>respository for ethnomedicinal plants</p> <p>Date: 2-3 Feb. 2013</p>	<p>Rajaram College, Kolhapur</p>	<p>(Poster)</p>
25.	<p>Seed recalcitrance: A major constrain in the regeneration of a mangrove species</p> <p><i>Cynometra iripa</i> Kostel</p> <p>N. S. Chavan, M. V. Gokhale &amp; A. S. Bhoite</p>	<p>International workshop on conservation of Mangroves in India</p> <p>Date: 26-27 July 2013</p>	<p>Gujarat Ecology Commission</p>	<p>International (Poster)</p>
26.	<p>Role of seedling morphology in mangrove conservation with special reference to <i>Avicennia</i> species from coastal Maharashtra &amp; Goa</p> <p>N. S. Chavan &amp; S. S. Shaikh</p>	<p>International workshop on conservation of Mangroves in India</p> <p>Date: 26-27 July 2013</p>	<p>Gujarat Ecology Commission</p>	<p>International (Poster)</p>
27.	<p>Rapid small-scale laboratory starch isolation technique from mangroves</p> <p>N. S. Chavan &amp; Priya D. Patil</p>	<p>International workshop on conservation of Mangroves in India</p> <p>Date: 26-27 July 2013</p>	<p>Gujarat Ecology Commission</p>	<p>International (Poster)</p>
28.	<p>Essential oil composition from different parts of</p>	<p>International workshop on conservation of Mangroves in India</p>	<p>Gujarat Ecology Commission</p>	<p>International (Poster)</p>

	<i>Cynometra iripa</i> Kostel N. S. Chavan, M. N. Desai	Date: 26-27 July 2013		
29.	Assessment of soil properties of different tree species	National seminar on Environmental Management & Biodiversity Conservation Date: 17-18 Jan. 2014	Department of Botany, Zoology & Chemistry, AMA & NCS College, Rajapur	National (Poster)
30.	Effect of growth hormone on stem cuttings of <i>Ixora coccinea</i> L. N. S. Chavan & Amruta S. Shinde	National seminar on Environmental Management & Biodiversity Conservation Date: 17-18 Jan. 2014	Department of Botany, Zoology & Chemistry, AMA & NCS College, Rajapur	National (Oral)
31.	Potential bioresources of Ratnagiri District: A need of sustainable management N. S. Chavan & Tarnnu M. Mulla	National seminar on Environmental Management & Biodiversity Conservation Date: 17-18 Jan. 2014	Department of Botany, Zoology & Chemistry, AMA & NCS College, Rajapur	National (Poster)
32.	Mango starch: Its use and Future prospects N. S. Chavan & Priya D Patil	National seminar on Environmental Management & Biodiversity Conservation Date: 17-18 Jan. 2014	Department of Botany, Zoology & Chemistry, AMA & NCS College, Rajapur	National (Poster)
33.	Dr. N. S. Chavan	Mangrove Biodiversity and Climate Change National Seminar on Climate change and its	K. L. E. Society's Organization R. L. S. Institute	National (Oral)

		impact on Biodiversity Date: 30-31 Jan. 2015	Belagavi, Karnataka.	
34.	Isolation and Characterization of starch from <i>Kandelia candel</i> (L.) Druce as an important biomaterial for various industries P. D. Patil and N. S. Chavan	National Conference on Mangroves of Kokan Coast  Date: 2-3 Feb. 2015	R. P. Gogate College of Arts and Science, R. V. Jogalekar College of Commerce, Ratnagiri organized by M. S. I. in collaboration with R. E. Society's	National  (Poster)
35.	Study of thermal behaviour and properties of starch isolated from <i>Bruguiera</i> Species P. D. Patil and N. S. Chavan	National Conference organized by Department of Botany Shivaji University, Kolhapur  Date: 22-24 Dec. 2014	XII Conference of Society of Cytologist and Geneticists and National Symposium on Challenges for Biologists in 21 <sup>st</sup> Century.	National  (Oral)
36.	Biodiversity and productivity of fishery in mangrove habitat of Ratnagiri coast T. M. Mulla and N. S. Chavan	. National Conference organized by Department of Botany Shivaji University, Kolhapur.  Date: 22-24 Dec. 2014	XII Conference of Society of Cytologist and Geneticists and National Symposium on Challenges for Biologists in 21 <sup>st</sup> Century.	National  (Poster)
37.	Frequency multiple shoot induction and in	National Conference organized by	XII Conference of Society of	National

	<p>vitro flowering of <i>Cucumis tirgonus</i> Roxb</p> <p>Aruna Mali and Niranjana Chavan</p>	<p>Department of Botany Shivaji University, Kolhapur.</p> <p>Date: 22-24 Dec. 2014</p>	<p>Cytologist and Geneticists and National Symposium on Challenges for Biologists in 21<sup>st</sup> Century.</p>	<p>(Poster)</p>
38.	<p>Germination and growth performance of <i>Heritiera littoralis</i> Dryand</p> <p>N. S. Chavan</p>	<p>National Conference on Mangroves of Kokan Coast.</p> <p>Date: 2-3 Feb. 2015</p>	<p>R. P. Gogate College of Arts and Science, R. V. Jogalekar College of Commerce, Ratnagiri organized by M. S. I. in collaboration with R. E. Society's</p>	<p>National (Oral)</p>
39.	<p>Ex situ conservation of <i>Cynometra iripa</i> Kostel- Critically endangered species</p> <p>N. S. Chavan, T. M. Mulla and M. D. Nadaf</p>	<p>International conference on plant research and resource management 25<sup>th</sup> APSI Silver jubilee scientist meet 2016</p> <p>Date: 11-13 Feb. 2016</p>	<p>Tuljaram Chaturchand College, Baramati</p>	<p>International (Poster)</p>
41.	<p>Phytosociological study of Achara mangroves</p> <p>M. V. Gokhale and N. S. Chavan</p>	<p>International conference on plant research and resource management 25<sup>th</sup> APSI Silver jubilee scientist meet 2016</p> <p>Date: 11-13 Feb. 2016</p>	<p>Tuljaram Chaturchand College, Baramati</p>	<p>International (Oral)</p>



42.	Mangroves: Potentialities and prospects N.S.Chavan	Silver Jubilee conference on mangrove ecosystem 26 <sup>th</sup> July to 27 <sup>th</sup> July, 2017	National Institute of Oceanography, Goa	National (Oral)
43.	Proximate analysis, mineral profile and properties of <i>Heritiera littoralis</i> Drynd. N.S.Chavan and Priya D. Patil	Silver Jubilee conference on mangrove ecosystem 26 <sup>th</sup> July to 27 <sup>th</sup> July, 2017	National Institute of Oceanography, Goa	National (Poster)
44.	<i>Cynometra iripa</i> a potential mangroves M.N.Desai and N.S.Chavan	Silver Jubilee conference on mangrove ecosystem 26 <sup>th</sup> July to 27 <sup>th</sup> July, 2017	National Institute of Oceanography, Goa	National (Poster)
45.	Phytosociological study of some sites of Ratnagiri coast Tarnnum M. Mulla, Niranjana S. Chavan	Silver Jubilee conference on mangrove ecosystem 26 <sup>th</sup> July to 27 <sup>th</sup> July, 2017	National Institute of Oceanography, Goa	National (Poster)
46.	Salt secretion from various mangrove species V.L.Patil, M.M. Vibhute, N.S.Chavan and M.D.Nadaf	Recent advances in physics and natural sciences 23th January, 2018	Karamveer Bahurao Patil, Urun, Islampur	National (Poster)

47.	Determination of phenolics from some mangrove species under nursery conditions Shinde, K.S., Patil, V.L. Nadaf, M.D. and N.S. Chavan	National conference on multidisciplinary approaches in life sciences: Research and applications for sustainable development	YCIS, Satara	National  (Poster)
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**Research Monographs/Text Books/ Reference Books:**

Sr. No.	Title with page nos.	Type of Book & Authorship	Publisher & ISSN/ISBN No.	Whether peer reviewed	Whether principal author / corresponding author
1.	Sustainable Environmental Management (Some facts regarding the mangroves of Maharashtra.)	Reference Book	Daya Publishing House, Delhi.	--	Sole author
2.	Tropical Ecosystems: Ecology and management – Physiology of Mangroves	Text Book: Chapter (Page no. 315-320)	Wiley Eastern Ltd. New Delhi, 1992	Peer reviewed	Co-author
3.	Environment Adaptive Biology of Plants- The mangroves	Reference Book (Page no. 143-150)	Scientific Publisher, Jodhpur, 1995	Peer Reviewed	Co-author
4.	Acharyache	Reference	Chaitynaprasad Publication,	--	Co-

	Mangalval I <sup>st</sup> Ed.	Book 1-65	Kolhapur.		author
5.	Acharyache Mangalval II <sup>nd</sup> Ed.	Reference Book 1-65	Chaitynaprasad Publication, Kolhapur.	ISBN - 13: 978- 81- 926339- 0-9	Co- author
6.	Pocket Guide Introduction of Mangroves of Maharashtra	Reference Booklet	In collaboration with Forest Dept.	--	Co- author
7.	Phenological events of critically endangered mangrove species along the coast of Maharashtra  (Mangroves of India Their Biological Uses)	Reference Book: 229-232	Zoological Survey of India, Kolkata	ISBN 978-81- 8171- 336-0	Corresp onding author
8.	Conservation of critically endangered mangrove species <i>Xylocarpus</i> <i>granatum</i> Koen and <i>Cynometra iripa</i> Kostel along the coast of Maharashtra  (Mangroves of India Their Biological Uses)	Reference Book: 535-539	Zoological Survey of India, Kolkata	ISBN 978-81- 8171- 336-0	Co- author

9.	Mangrove Ecosystem of Ratnagiri District	Book (2017)	Forest Department Chiplun, Mangrove cell Mumbai on behalf of Federal ministry for Economic Cooperation and Development Germany	Author
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### Examination work:

- Worked as External as well as Internal Examiner at M. Sc., M.Phil/ Pre-Ph.D. and M.Sc. entrance University level.
- Worked as External Examiner for PG in Amaravati University, Goa University and Satara centre.
- Worked as experts for PG examinations since 1991.
- Worked as Junior and Senior Supervisor in the Shivaji University examination.
- Worked as the Assi. Director and Director of the Central Assessment Work for Medical sciences.
- Revaluation, Assessments and Moderation at P. G. level.
- Worked as co-paper setter, moderator and examiner at M.Sc. Botany, M. Sc. Biotechnology, M.Phil/ Pre-Ph.D. and M. Sc. Entrance.
- Chairman of M.Phil. Examination in Botany for 1999-2000 and 2000-2001.
- Chairman M.Sc. Examination 2011-2013
- M.Sc. Examiner at Various canters and Universities Solapur, Mumbai, Rashtrasant Tukdoji. Maharaj Nagpur, Dharwad University etc. since 1995.

### Extension activities carried out

- Vice President of IWSA (Indian Women Scientist Association-Kolhapur Chapter) since 2008.
- E.C. Member of SUPTA.
- Rector-Shivaji University Ladies Hostel 2003-2005.

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- Organized through IWSA: Workshop on women empowerment on 8th March ,2008
  - Radio Talks on Productivity of the Earth (16/06/94), Bamboos (15/11/95), Natural and Biological control of pests (03/04/2000)from Akashwani Sangli and Kolhapur.
  - Organisation of Lectures on the popularization of Science on behalf of IWSA.
  - Environmental Association programme.
  - Participation in Marathi Vigyan Sammelan at Panhala, 1998; Dhamode, 2000.
  - Delivered lecture on Values and functions of Wetlands as resource person in refresher course held at Economics Dept., Shivaji University, Kolhapur 23/10/2001.
  - Visiting lecture; Y. C .College, Karad on Tissue culture techniques and applications 22/03/2001.
  - Conduction of Viva- Voce of Ph.D. and M.Phil as a chairman.
  - Guidance to NET/ SET students as resource person.
  - Worked as a resource person in Awareness Programme organized by Green Guards, Kolhapur on ‘Garbage in big cities’, May 2003.
  - Delivered talk on ‘Medicinal properties of Ocimum and Turmeric’ organized by Venugram Paryawarn Sanstha, Belgaum. 05/06/2003.
  - Convener for Celebration of Wetland day in the form of exhibition, seminar, popular lectures, visits etc. In Feb. 2005.
  - Worked as examiner for taluka level science exhibition held at Sadhu Waswani Hightschool, Gandhinagar on 14th and 15th Dec 1996.
  - Worked as the judge for the debate competition held at DKT, Ichalkaranji, 2001.
  - Popular lecture on ‘The Wetlands’ on the occasion of World Wetlands Day 2nd Feb. 2008 in Oriental School, Kolhapur.
  - Worked as resource person in Mangrove Awareness programme held at Ratnagiri in Jan. 2008.
  - Organizing secretary for National Workshop on Mangrove Awareness in Jan. 2009.
  - Organized National Conference on Biodiversity Conservation under IWSA, Kolhapur branch held at Panhala, 8-10 January, 2010.
  - Convener for ‘Kharphuti Janajagaran Karyashala’ held at Malwan on 18<sup>th</sup> January, 2010 organized by UGC-DRS-I-SAP, Department of Botany, ShivajiUniversity, Kolhapur.
  - Convener for ‘Kharphuti Janajagaran Karyashala’ held at Ratnagiri on 9<sup>th</sup> February, 2010 organized by UGC-DRS-I-SAP, Department of Botany, Shivaji University, Kolhapur.
  - Co-ordinator for ‘Kharphuti Samvardhan Karyashala’ held at Achara on 24<sup>th</sup> February, 2010 organized by BAIF, Pune and Department of Botany, Shivaji University, Kolhapur.

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- Served as Resource person in the National Science Day Celebration and Science Exhibition and delivered talk on I. Plant Diversity and II. Coastal Diversity held on 26<sup>th</sup> February, 2010 at B.L.D.E. Association, S. B. Arts and K. C .P. Science College, Bijapur.
  - Served as resource person in a workshop on ‘Role of women in nature conservation’ held on 3<sup>rd</sup> January, 2010 at Kamala College organized by Kamala College and Adult and Continuous Education Department, Shivaji University, Kolhapur.
  - Served as resource person in International conference –MAAG 2012 held on 6-7<sup>th</sup> January, 2012 at Gopal Krishna Gokhale College, Kolhapur.
  - Served as resource person in National Seminar on Recent Advances in Agricultural Botany held on 27-28<sup>th</sup> September, 2012 at Devchand College, Arjunnagar.
  - Served as resource person in National conference on Sacred groves as a repository for Ethnomedicinal Plants held on 1-2<sup>nd</sup> February, 2013 at Rajaram College, Kolhapur.
  - Served as resource person in International workshop on Conservation of Mangroves in India held on 26-27<sup>th</sup> July, 2013 at Mahatma Mandir, Gujarat organized by GEC, ISME, and MSI.
  - Served as resource person in National Seminar on Environmental management and biodiversity conservation held on 17-18<sup>th</sup> Jan. 2014 at Rajapur organized by Department of Botany, Zoology and Chemistry AMS and NCS College, Rajapur.
  - Served as resource person in National conference on Environmental Conference-2014 held on 17-19<sup>th</sup> Feb. 2014 at Kerala organized by Department of Environmental science, Central University, Kerala.
  - Worked as referee for M. Phil. , M. Sc. T & D, Ph. D.
  - Member of Board of Examination in Botany, Biotechnology, Environmental science.
  - Member of Board of examination in MEM, SCIBER, Kolhapur.
  - Member of Board Of Studies ,S U K
  - Co ordinator NAAC ,Department of Botany 2016

### **Contribution to corporate life of the Institution**

- Chairman of the various committees in different refresher courses conducted by department of Botany.
- Resource person in the refresher courses.
- Worked in examination squad (2000, 2002) as a member.
- Assessment of M. Phil and Ph.D. thesis of other Universities (Maharashtra, Kerala, Orissa, Karnataka and Goa).
- Rector of Ladies Hostel Shivaji University since 2003-2005.
- Counselling of P.G. students.

- Organization of botanical excursions for P. G. students.
- Worked as a V.C. nominee on various selection committees.
- Actively participated as department representative in the NSD.
- LIC member at various colleges.
- Management Committee member in Kolhapur Public School.
- Selected as Executive member, Mangrove Society of India (MSI) since July 2013.
- Rector Ladies Hostel, Shivaji University, Kolhapur since June 2014.
- Chief Rector Ladies Hostel , Shivaji University ,Kolhapur since June 2015 .
- Chairman, I.C.C (Internal Complaint Committee) Shivaji University, Kolhapur 2016.

### **Field outreach activity.**

- Mangrove regeneration programme and coastal management.
- Exploration of potential wild cucurbits.
- Pioneer work on mangrove phenology.
- Successfully developed *in-vitro* and *in-vivo* cultural technique in wild cucurbits like *Momordica* spe., *Kedrostis*, *Cucumis* spe.
- Field trials and cultivation of some wild cucurbits and guidance to Cultivation practices of some wild cucurbits are under progress.
- Exploration of coastal Bioresources.
- Standardization of regeneration techniques for RET Mangrove species.
- *Ex-situ* and *In-situ* conservation of RET Mangrove species.

### **Honours/ Prizes/ Awards**

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- Department of Ocean Development fellowship (1987 to 1990) as Research Associate.
- Fellow of Society of Environmental Sciences.
- Mulimani M. B., Gokhale M. V. and Chavan N. S. (2006) Morphometric variations in *Cucumis trigonus* Roxb. awarded **Best Poster Presentation Prize** in National Symposium on Issues and Challenges for Environmental Management -Vision 2025, 17<sup>th</sup> to 19<sup>th</sup> February, 2006, Lucknow.
- Gokhale M.V., Shaikh, S. S. and Chavan N.S.(2007). **Ecotechnological applications in sustainability, management and conservation of Mangroves**. Presented paper in National Workshop on Recent trends in Biotechnology. March 28<sup>th</sup>-29<sup>th</sup>, **Best paper presentation Award**.

- Alka Patil and N. S. Chavan (2008) Assessment of Bhambarde Reservoir: Case study of Khanapur Tahsil. Presented paper in International Conference on Biodiversity, Environment and sustainable Development, 4<sup>th</sup> to 6<sup>th</sup> Sept. 2008, New Delhi. **Best International paper Award.**
- Received ‘**Shiv Purskar**’ of the year 2012-13.
- Priya Patil and N. S. Chavan (2013) Isolation & Characterization starch from the members of family Rhizophoraceae. Presented paper in ‘**Avishkar Competition**’ 2<sup>nd</sup> to 3<sup>rd</sup> January. 2013, Shivaji University, Kolhapur. (**1<sup>st</sup> Prize in the category: Engineering & Technology**).
- Priya Patil and N. S. Chavan (2014) Mango starch: Its uses and Future prospects. Presented paper in ‘**Avishkar Competition**’ 2<sup>nd</sup> to 3<sup>rd</sup> January. 2013, Shivaji University, Kolhapur. (**3<sup>rd</sup> Prize in the category: Engineering & Technology**)
- Honoured by Shivsena Mahila Aaghadi Kolhapur for the massive contribution in the field of science for year 2016 on the occasion of World Womens day, 8<sup>th</sup> March,2017.
- N. S. Chavan (2017) ‘**Best Professor Award**’. Pearl Foundation Educational Excellence Award.Dec.2017, Madurai.
- Best oral presentation at International Conference on Advanced Research in Life Sciences, SGM College, Karad (2018).
- Awarded Second Prize for Private Mini Garden Competition and Mrs. Lata Shashikant Joshi Trophy 2017 by Gardens Club Kolhapur on 2<sup>nd</sup> & 3<sup>rd</sup> December, 2017.
- International Journal for Research under Literal Access (IJRULA) Title Award Winner, as a Best Researcher 18 (19<sup>th</sup> June, 2018 [www.ijrula.com](http://www.ijrula.com)).

#### **Guided for Project Work for M.Sc. Students:**

- ‘Cultivation of Mangroves under Nursery condition’ by Maya V. Vibhute (2003).
- ‘Study of Physico-chemical environment of Achara estuary’ by Mahesh V. Ghokhale (2000).
- ‘Effect of effluent on the growth of Horticultural plants’ by Beena B. Kandane (2003).
- ‘Bioremediation of effluent from Tannery industry using Bioreactor’ by Mbiyu M. Wanjiku (2006).
- ‘Transgenic Plants’ by Galande J. L. (2007).
- ‘Status Report on Sagareshwar’ by Rupali V. Kapase (2008).
- ‘Studies of enzyme Nitrate reductase activity in different plant parts’ by Bhuse Usha M. (2008)



- ‘Isolation & characterization of starch from *Aegiceras corniculatum* (L.) Blanco’ by Priya P. Pawar (2009).
- ‘Vermicomposting of Invasive species *Hydrilla verticillata*, *Salvinia molesta* and *Rotala rotundifolia* with *Eisenia fetida*’ by Malekar Megha N. and Sutkar Mandakini Y. (2011).
- Preliminary screening of waste degrading bacteria by Poonam C. Patil (2011).

**List of M.Phil/Ph.D. students (awarded):**

- Ecophysiological Study in *Ipomea fistulosa* Mart. By Prakash S. Jadhav (1996).
- Ecology of Mangrove species by R. D. Tare (1993).
- Studies on quality of lentic water resources of Wadi Ratnagiri by S. B. Jadhav (2008).
- *In Vitro* Culture of *Momordica Dioca* Roxb. Ex. Willd. By Panditrao D. Shirgave (2003).
- Studies on the Mangrove environment of Achara estuary by M. V. Gokhale (2004).
- Studies on starch and its distribution pattern in mangrove to three species of *Sonnerartia* by A. B. Telave (2005).
- Studies on economically important wild cucurbits by M. B. Mulimani (2007).
- Studies on importance of wetlands in Sangli district in relation to Fishery and Agricultural productivity by A. A. Patil (2010).
- Autecological study of *Momordica cymbalaria* Hook. F. by S. V. Madhale (2010).
- Autecology of a Mangrove species *Cynometra iripa* Kostel by M.N. Desai (2011).
- Studies in exploration of Biopesticidal potential of some plants D.S. Patil (2011).
- Studies on the genus *Avicinnia* along the coast of Maharashtra by S. S. Shaikh (2012).
- *In vitro* studies in a wild cucurbit, *Cucumis trigonus* Roxb. By Aruna M. Mali (2013).
- ‘Isolation and characterization of starch from members of family Rhizophoraceae of Maharashtra’ by Priya D. Patil (2016).
- Status of waterbodies in Gadhinglaj Tahasil, Kolhapur District, Maharashtra by R. S. Sawant (2017).
- ‘Spatial & temporal change in Nitrogen & Phosphorus levels of selected water bodies of Shirala’ by S. P. Maldar (2019).
- Bioprospecting of *Luffa acutangula* (Roxb) var. *amara* by Santosh J. Jadhav (2019).
- Bioresource profile of Ratnagiri Coast with special reference to Mangroves and Fishery’ by Tarnnum M. Mulla (2019).

**List of M. Phil/Ph. D. students (working):**

- ‘Domestication of some wild coastal plants from west coast of Maharashtra’ (Amruta S. Shinde) 1<sup>st</sup> July 2011. (Thesis submitted)
- ‘Ecological status of mangrove associate species in Sindhudurg district. (M. D. Nadaf) 1<sup>st</sup> July, 2015.
- Studies on salt secretion in *Acanthus ilicifolius* L. (Vidya L. Patil) 1<sup>st</sup> July, 2018

**Any Other Important Activities:**

- Organized a workshop on “Current approaches on mangrove biodiversity and conservation in Maharashtra for Forest Officials” 19<sup>th</sup> March 2013 at Malvan.
- Selected as Executive committee member on Mangrove Society of India (MSI). Organised Training programmes for Forest Guards, R.F.O., Research students, Fishermen and coastal inhabitants on Mangrove Biodiversity, Coastal Ecosystems, Regeneration Techniques, and Plantations. Since 2007-2017 (14 Workshops/Training programme)