



## Dr. Aparna Amit Saraf

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### Educational Qualification:

- **Ph.D.** [Plant Physiology and Biochemistry] (1999),  
The Institute of Science, Mumbai,  
University of Mumbai, India.

### Academic achievements:

- Topped at M.Sc. in the field of Plant Physiology and Biochemistry specialization from Institute of Science, Mumbai
- Recipient of “Government of Maharashtra Fellowship” for PhD.
- Awarded “University Merit Scholarship” at M.Sc. for excellence in studies.
- Awarded “Daxina Fellowship” from The Institute of Science, Mumbai for excellence in studies.
- Recipient of “Municipal Scholarship” from class VIII till graduation for securing first class with distinctions at all examination.
- Topper at S.S.C. examinations from school.
- Cleared MS-CIT examination conducted by Govt. of Maharashtra
- Successfully completed orientation course conducted by UGC, from 29<sup>th</sup> November – 28<sup>th</sup> December, 2005 with ‘A’ Grade.
- Successfully completed Refresher Course in Biological Science conducted by the UGC at Khalsa College, 18<sup>th</sup> October 2007-3<sup>rd</sup> November 2007 with ‘A’ grade.
- Successfully completed Refresher Course in Life Sciences conducted by the UGC at Ruia College with ‘A’ grade
- Successfully completed STP (State Training Programme) for Associated Professor selected by MPSC in Higher Education Department, conducted by Yashwantrao Chavan Academy of Development Administration (YASHDA), Pune from 15<sup>th</sup> July – 24 August, 2013

### Work Experience:

- Selected as Associate Professor (Botany) by Maharashtra Public Service Commission (MPSC), ranked first in the State.
- Faculty at Post Graduation level at The Institute of Science, Mumbai from 1996 onwards.

### Analytical Skills:

- Completed course in “Instrumentation and Analytical Techniques” conducted by “Wool research Institute”, Thane.
- Completed course in “Computer Maintenance and Assembly Workshop” conducted by WRIC (Western Region Instrumentation Centre), Mumbai.

### Research Experience:

- From 1995 in the field of Phytochemical Analysis of Medicinal Plants.

### Area of Research

- Plant Physiology and Biochemistry are my thrust areas of Research.
- I am mainly engaged in Chemical Fingerprinting, chemical characterization and developing chemical profiles using modern analytical techniques with a view to develop fingerprints for important Ayurvedic medicinal plants.
- Another thrust area of research is Isolation and characterization of specific marker compounds from medicinal plants so as to establish their identity and also for quality control.
- Screening of potential medicinal plants for anti-infective compounds is another mandate which is being carried out.
- Members of Bignoneace which are endangered have been worked upon. *Tecomella undulata* (Seem), *Oroxylum indicum* l. (Vent)
- Medicinal plants like *Zanthoxylum rhetsa* (Roxb.), *Derris heyneana*, *Babubinia sp* are being worked upon for development of fingerprints, Method development and validation and screening of anti infective compounds.
- Chemical And Molecular fingerprints have been established for *Achyranthes aspera* Linn, *Oroxylum indicum* l. (Vent).
- Marker compounds have also been established for the above plants. Oleanolic Acid and  $\beta$ -Sitosterol for *Achyranthes aspera* Linn, Quercetin and Baicalein for *Oroxylum indicum* l. (Vent). Rutin, quercetin and stigmasterol for *Tecomella undulata* (Seem), Lupeol and  $\beta$ -Sitosterol for *Derris heyneana* (Wight and Arn) Benth.
- Quercetin has been reported first time in all plant parts of *Oroxylum indicum* l. (Vent).
- Development of Monographs of Medicinal Plants is being carried out for quality control.
- Screening of plants for antisolar activity is another mandate being carried out. Antisolar activity of *Oroxylum indicum* l. has been established.

### Research Project:

- **Research Project sanctioned by UGC, entitled**  
“Screening of potential medicinal plants for anti-microbial activity: an approach in search of anti-infective compounds”
- Received University Research Grant for 2003-2004 for the project “Investigations on the accumulation of Nitrates & Oxalates and its effect on minerals & vitamins in leafy vegetables grown on sewage water irrigation”.
- Received University Research Grant for 2013-2014 for the project “Chemical Fingerprinting of *Tecomella undulata* (Seem) – An endangered Medicinal Plant.”

### Research Papers: (34)

- 1) **Saraf, A. A., & Shinde, P. S.** “Chemical fingerprint profile of various secondary metabolites of medical plant *Derris heyneana* (Wight and Arn) Benth”. Research Journal of Pharmacognosy and Phytochemistry, 2018, 10(2), 193-199.
- 2) **Aparna, S., & Srinivas, K. S.**, “Genetic diversity analysis of *Oroxylum indicum* (L) Vent, an endangered and important medicinal plant using Inter Simple Sequence Repeat (ISSR) markers,” International Journal of Botany Studies, 2018, 3 (3), 78-81
- 3) **Saraf, A., & Shinde, P.**, “Phytochemical analysis and chemical fingerprinting of *Derris heyneana* (Wight and Arn.) Benth.” Journal of Pharmacognosy and Phytochemistry, 2018, 7 (3), 740-747
- 4) Amit Saraf, **Aparna Saraf** and Alka Chaturvedi, "Phytochemical Analysis and Chemical Fingerprinting of Seeds of *Abrus precatorius* L.," Chem Sci Trans., 2018, 7(1), pp 63-70 DOI:10.7598/cst2018.1460
- 5) **Saraf, A., & Shinde, P.** , "Development and Validation of HPTLC Method for Quantification of Biomarker  $\beta$ -Sitosterol in *Derris heyneana* (Wight and Arn) Benth," Chem Sci Trans.,2017,6(1), pp 42-49 DOI:10.7598/cst2017.1307
- 6) **Aparna Saraf** and Pooja Shinde; Elemental Analysis of different plant parts of *Derris Heyneana* (Wight And Arn) Benth collected from Western Ghats of Maharashtra; World Journal of Pharmacy and Pharmaceutical Sciences; 2016;Volume 5, Issue 3, 1452-1461
- 7) **Saraf Aparna**, Samant Aruna; High-Performance Thin Layer Chromatography Method for Identification and Quantification of Oleanolic Acid in the Roots of *Achyranthes aspera* Linn.; International Journal of Green Pharmacy; Vol. 9, Issue 4 (Suppl); 2015; S70-74
- 8) **Saraf Aparna** , Shweta Sankhla; HPTLC Fingerprint Profile of Extracts from Leaf, Bark and Flower of *Tecomella undulata* (Seem) in Different Solvents; International Journal of Pharmacognosy and Phytochemical research; Vol. 7, Issue 6; 2015; 1208-1216

- 9) **Saraf Aparna**, Samant Aruna; Development and Validation of HPTLC Method for Quantification of Biomarker  $\beta$ -Sitosterol in the Leaves of *Achyranthes aspera* Linn.; Chemical Science Transactions; Volume 4, Issue 4, 2015; 1121-1130
- 10) **Saraf Aparna**, Samant Aruna; HPTLC Method for Identification and Quantification of  $\beta$ - sitosterol in the Roots of *Achyranthes aspera* Linn. International Journal of Pharma Sciences Vol. 5, No. 4 (2015): 1117-1122
- 11) **Saraf Aparna**, Samant Aruna; HPTLC Fingerprint Profile and Antimicrobial Activity of Leaves of *Achyranthes aspera* Linn.; World Journal of Pharmacy and Pharmaceutical Sciences; Volume 4, Issue 3, 2015, 879-899.
- 12) **Aparna Saraf**, K. Srilatha Srinivas; HPTLC Fingerprints of Essential Oils in *Oroxylum indicum* (L.) Vent; World Journal of Pharmacy and Pharmaceutical Sciences; Volume 4, Issue 1, 2015, 577-594.
- 13) **Aparna Saraf**, K. Srilatha Srinivas; Development of HPTLC Fingerprints of Flavanoids using Quercetin and Baicalein as markers in *Oroxylum indicum* (L.) Vent.; Journal of Biomedical and Pharmaceutical Research; Volume 3, Issue 6, 2014, 09-26
- 14) **Aparna Saraf**, K. Srilatha Srinivas; Chromatographic Fingerprint Analysis of Sterols in *Oroxylum indicum* (L.) Vent. by HPTLC Technique; World Journal of Pharmaceutical Research; Volume 3, Issue 9, 2014
- 15) **Saraf Aparna**, Samant Aruna; "HPTLC Fingerprint Profile of Steroidal Constituents of *Achyranthes aspera* Linn.>"; Journal of Biomedical and Pharmaceutical Research, Volume 3, Issue 5, 2014, 60-66
- 16) **Saraf Aparna**, Samant Aruna; "Chromatographic Fingerprint Analysis of Flavonoids of *Achyranthes aspera* Linn. by HPTLC" Journal of Biomedical and Pharmaceutical Research, Volume 3, Issue 4, 2014, 13-24
- 17) **Saraf Aparna** , Shweta Sankhla; "Simultaneous determination of Rutin and Quercetin in different parts of *Tecomella undulata* (Seem): An Endangered Medicinal plant." International Journal of Pharmacognosy and Phytochemical Research (ISSN: 0975-4873) 2014; 6(3)
- 18) **Saraf Aparna**, Saraf Amit; "Phytochemical and Antimicrobial studies of Medicinal Plant *Piper longum* Linn." . International Journal of Pharmacognosy and Phytochemical Research (ISSN: 0975-4873) 2014; 6(2); 213-222
- 19) **Saraf Aparna**, Samant Aruna; Pharmacognostic and Phytochemical Studies for the Establishment of Quality Parameters of Leaf of *Achyranthes aspera* Linn., International Journal of Pharmacognosy and Phytochemical Research (ISSN: 0975-4873) 2014; 6(1); 122-127
- 20) **Aparna Saraf**, Shweta Sankhala (2013), Evaluation of Elemental Profile of *Tecomella undulata* (Seem): An Endangered Medicinal Plant. Res. J. Pharm., Biol. Chem. Sci., Vol 4 (3), 2013 , 600-607

- 21) **Aparna Saraf**, K. Srilatha Srinivas, Labhane N L (2013), "Pharmacognostic Studies and HPTLC fingerprint profile of stem of *Oroxylum indicum* (L) Vent., - A Threatened & Vulnerable medicinal plant." Res. J. Pharm., Biol. Chem. Sci., Vol 4 (3) , 2013, 1078-1084
- 22) **Aparna Saraf**, Aruna Samant (2013) Evaluation of some minerals and trace elements in *Achyranthes aspera* Linn., International Journal of Pharma Sciences, Vol. 3, No. 3 (2013): 229-233.
- 23) **Priya Alphanso**, Aparna Saraf (2012), Chemical profile studies on the secondary metabolites of medicinally important plant *Zanthoxylum rhetsa* (Roxb.) DC using HPTLC, Asian Pacific Journal of Tropical Biomedicine, 2(3); 2012; S1293-S1298
- 24) Priya Alphanso, **Aparna Saraf** (2012), Profile of Mineral content in *Zanthoxylum rhetsa* Roxb (DC): Proceedings of UGC sponsored "National Conference on Innovative Research Trends in Biological Sciences", Akola, September 8-9, 2012. ISBN: 978-81-923621-0-6, 571-74.
- 25) K. Srilatha Srinivas, **Aparna Saraf** (2011), Profile of Elemental Composition of *Oroxylum indicum* L. (Vent) Collected from Different Geographical Regions of India. Phcog J. August 2011, Vol. 3, Issue 24, 49-53.
- 26) **Aparna Saraf**, K. Srilatha Srinivas (2011), High Performance Thin Layer Chromatographic determination of Chrysin in *Oroxylum indicum* Vent. from different geographical regions of India, E Journal of Chemistry, 2011, Vol. 8.
- 27) **Aparna Saraf** (2011), High performance Thin Layer Chromatography Analysis of Steroidal Saponin, diosgenin from *Costus speciosus* Koen. Bionano Frontier Vol. 4(2), 2, pp 302-304.
- 28) **Aparna Saraf**, Dipali Totkekar (2011) Evaluation of *Garcinia indica* Choisy. Seeds as an Anti Solar agent ; Inventi Rapid: Ethnopharmacology ; Vol. 2, Issue 1
- 29) **Aparna Saraf** (2010) Phytochemical and Antimicrobial Studies of *Costus speciosus* Koen.- a medicinal Plant. E- Journal of Chemistry Vol.7(S1), S405-S403
- 30) **Aparna Saraf**, Dipali Totkekar (2010), "Anti-Solar Activity of Flowers of *Butea Monosperma* (Lam.)"; Inventi Rapid: Ethnopharmacology Vol. 1, Issue 1
- 31) **Aparna Saraf**, Dipali Totkekar, Amit Saraf (2010), "An In-Vitro Evaluation of Flowers of *Tagetes Spp.* (L) as A Natural Anti-Solar Agent"; Nature and Science, Marsland Press, USA. (2010), Vol 8(10): pp 274-276.
- 32) **Aparna Saraf**, (2009): Changes in fruit quality during ripening of *Achras sapota* (Linn.) . Bionano Frontiers, Science Day special issue, pp. 99-102.
- 33) **Aparna Saraf**, Amit Saraf (2009): Phytochemical Studies and evaluation of antibacterial activity of *Zanthoxylum budrunga* DC Wall. Bionano Frontiers. 2009, Vol. II, (2), pp 21-23

- 34) **Aparna Saraf** (2009) Prabuddha Gupta, (2009): Antibacterial and phytochemical study on *Glycyrrhiza glabra* (Linn.). Bionano Frontiers, 2009, Vol. II(2), I pp. 44-49.

### **Research Presentation:**

#### Presentations at International Conferences (20)

- 1) Pooja Shinde and **Aparna Saraf**; Pharmacognostic, physicochemical and chromatographic characterization of *Derris heyneana* (Wight and Arn) Benth, 22nd National Convention of Society of Pharmacognosy & International Conference on “Integrating Ayurveda & Herbal Drugs for Next Generation Therapeutics & Supplements: Opportunities and Challenges”, Mehsana, Gujarat, India. 20-21<sup>st</sup> January 2018
- 2) Amit Saraf, **Aparna Saraf** & Alka Chaturvedi; Phytochemical Analysis and Chemical Fingerprinting of *Embelia ribes* Burm. f., 22nd National Convention of Society of Pharmacognosy & International Conference on “Integrating Ayurveda & Herbal Drugs for Next Generation Therapeutics & Supplements: Opportunities and Challenges”, Mehsana, Gujarat, India. 20-21<sup>st</sup> January 2018
- 3) Pooja Shinde and **Aparna Saraf**; Chemical and Molecular Fingerprint Analysis of *Derris heyneana* (Wight and Arn) Benth. by HPTLC & FTIR techniques; 4th International Congress of Society for Ethnopharmacology, India organized by Uka Tarsadia University, Bardoli, Surat, Gujrat, India on 23-25<sup>th</sup> February, 2017
- 4) Amit Saraf, **Aparna Saraf** & Alka Chaturvedi; HPTLC Fingerprint profile of the steroidal fraction in few medicinal plants with anti fertility activity; 4<sup>th</sup> International Congress of Society for Ethnopharmacology, India organized by Uka Tarsadia University, Bardoli, Surat, Gujrat, India on 23-25<sup>th</sup> February, 2017
- 5) Aruna Samant and **Aparna Saraf** : HPTLC method for identification and quantification of oleanolic acid in the leaves of *Achyranthes aspera* linn"; 1st International Conference: “Advances in Asian Medicines (ICAAM - 2016)” , Organized by Indian Association for the Study of Traditional Asian Medicine (IAASTAM) Pune , India & Society for Ethnopharmacology (India) , January 3-7, 2016
- 6) Pooja Shinde and **Aparna Saraf** : “HPTLC Fingerprint Profile of Steroidal Constituents of *Derris heyneana* (Wight and Arn) Benth from Western Ghats of Maharashtra” 1st International Conference: “Advances in Asian Medicines (ICAAM - 2016)” , Organized by Indian Association for the Study of Traditional Asian Medicine (IAASTAM) Pune , India & Society for Ethnopharmacology (India) , January 3-7, 2016

- 7) Shweta Sankhla and **Aparna Saraf** : “HPTLC Fingerprint profile and antimicrobial studies of leaf extracts of *Tecomella undulata* (Seem) : An Endangered species.” 1st International Conference: “Advances in Asian Medicines (ICAAM - 2016)” , Organized by Indian Association for the Study of Traditional Asian Medicine (IAASTAM) Pune , India & Society for Ethnopharmacology (India) , January 3-7, 2016
- 8) Aruna Samant and **Aparna Saraf** : “In vitro Antimicrobial potential and HPTLC fingerprint of roots of *Achyranthes aspera* Linn.” DST & ICMR sponsored, 2<sup>nd</sup> International Congress of the Society for Ethnopharmacology (India) on “Validation of Medicinal Plants & Traditional Medicine — Global Perspective” 20-22<sup>nd</sup> February, 2015, Nagpur.
- 9) Aruna Samant and **Aparna Saraf** : “Pharmacognostic and Phytochemical Evaluation of Stem of *Achyranthes aspera* Linn.” DBT & DST sponsored International Conference on “Current status, Opportunities and Challenges in Medicinal and Natural Product Research” at Uka Tarsadia University, Bardoli Gujrat, 24th- 26th September 2014.
- 10) **Aparna Saraf** and Shweta Sankhla : “Quantitative Estimation of Stigmasterol in Leaf Extracts of *Tecomella undulata* Seemby HPLC”, DBT & DST sponsored International Conference on “Current status, Opportunities and Challenges in Medicinal and Natural Product Research” at Uka Tarsadia University, Bardoli Gujrat, 24th- 26th September 2014.
- 11) **Aparna Saraf** and Amit Saraf : Chemical fingerprint profile and antibacterial studies on *Piper longum* Linn. ; “International Conference and Exhibition on Traditional & Alternative Medicine” held on December 9-11, 2013 in Radisson Blu Plaza Hotel, Hyderabad, India.
- 12) Amit Saraf, **Aparna Saraf** & Alka Chaturvedi : Phytochemical profile of the Essential oil in medicinally important plant *Embelia ribes* Burn. F using HPTLC and GC-MS ; “International Conference and Exhibition on Traditional & Alternative Medicine” held on December 9-11, 2013 in Radisson Blu Plaza Hotel, Hyderabad, India.
- 13) K. Srilatha Srinivas and **Aparna Saraf** : Pharmacognostic and Phytochemical studies of stem of *Oroxylum indicum* (L) Vent. from North Eastern Himalayan region of India: 5th International Conference on Medicinal and Herbal Products, organized by Manipal College of Pharmaceutical Sciences, Manipal, Karnataka, 25th, 26th & 27th January, 2013.
- 14) Amit Saraf and **Aparna Saraf**: HPTLC Fingerprint profile of extract from leaves of *Abrus precatorius* Linn. 5th International Conference on Medicinal and Herbal Products, organized by Manipal College of Pharmaceutical Sciences, Manipal, Karnataka, 25th, 26th & 27th January, 2013.

- 15) **Aparna Saraf** and Alphonso Priya: HPTLC Fingerprint profile of extracts from fruit of *Zanthoxylum rhetsa* (Roxb.) DC in different Solvents: 5th International Conference on Medicinal and Herbal Products, organized by Manipal College of Pharmaceutical Sciences, Manipal, Karnataka, 25th, 26th & 27th January, 2013.
- 16) K. Srilatha Srinivas and **Aparna Saraf** (2011). "A Comparative Evaluation of High-Performance Thin-Layer Chromatographic Fingerprints of Flavonoids and Tannins for Standardization of *Oroxylum indicum* vent."; ICMR and KLE University's College of Pharmacy sponsored 'International Convention and 15<sup>TH</sup> Annual conference of Society of Pharmacognosy, Belgaum', February 18-20, 2011.
- 17) Priya Alphonso, Amit Saraf and **Aparna Saraf** (2011). "Chemical Fingerprint Profile of *Zanthoxylum rhetsa* (Roxb.) DC". ICMR and KLE University's College of Pharmacy sponsored 'International Convention and 15<sup>TH</sup> Annual conference of Society of Pharmacognosy, Belgaum', February 18-20, 2011.
- 18) Dipali Totkekar and **Aparna Saraf** (2011) "HPTLC Fingerprint Profile of *Eupatorium repandum* Willd. and *Elephantopus scaber* L." ICMR and KLE University's College of Pharmacy sponsored 'International Convention and 15<sup>TH</sup> Annual conference of Society of Pharmacognosy, Belgaum', February 18-20, 2011.
- 19) K. Srilatha Srinivas and **Aparna Saraf** (2012) Chemical and Molecular Fingerprint profile of *Oroxylum indicum* L. Vent by HPTLC & FTIR techniques "16<sup>th</sup> National Convention of society of pharmacology and international symposium on herbal and traditional medicine on the theme (frontiers in drug discovery from herbal and traditional medicine )" organized by Department of Pharmaceutical Sciences, Suarashtra University, Rajkot, Gujarat, India, March 9-11th 2012
- 20) Alphonso Priya and Aparna Saraf : Chromatographic Finger print of Steroids in *Zanthoxylum rhetsa* Roxb ( DC) by HPTLC techniques : "16<sup>th</sup> National Convention of society of pharmacology and international symposium on herbal and traditional medicine on the theme (frontiers in drug discovery from herbal and traditional medicine )" organized by Department of Pharmaceutical Sciences, Suarashtra University, Rajkot, Gujarat, India, March 9-11th 2012



## Presentations at National Conference (18)

1. K. Srilatha Srinivas and **Aparna Saraf**; Genetic diversity analysis of *Oroxylum indicum* (L) Vent , an endangered and important medicinal plant using Inter Simple Sequence Repeat (ISSR) markers, One Day National Conference on Advances in Biological Sciences, Rizvi College of Arts, Science and Commerce, Mumbai, 3<sup>rd</sup> February 2018
2. Shweta Sankhla and **Aparna Saraf**; Phytochemical and antimicrobial studies on *Tecomella undulata* (Seem), One Day National Conference on Advances in Biological Sciences, Rizvi College of Arts, Science and Commerce, Mumbai, 3<sup>rd</sup> February 2018
3. Pooja Shinde and **Aparna Saraf**; Phytochemical analysis and chemical fingerprinting of *Derris heyneana* (Wight and Arn) Benth., One Day National Conference on Advances in Biological Sciences, Rizvi College of Arts, Science and Commerce, Mumbai, 3<sup>rd</sup> February 2018
4. Pooja Shinde and **Aparna Saraf**; Detection and characterization of bioactive phytosterol from *Derris heyneana* (Wight and Arn) Benth. National Seminar on Plant Biology-New Frontiers organized by Bhavans College, Andheri, Mumbai on 7<sup>th</sup> March 2017
5. Shweta Sankhla and **Aparna Saraf**; Phytochemical profile of secondary metabolites of medicinally important plant *Tecomella undulata* (Seem) using HPTLC; National Seminar on Plant Biology-New Frontiers organized by Bhavans College, Andheri, Mumbai on 7<sup>th</sup> March 2017
6. Amit Saraf, **Aparna Saraf** & Alka Chaturvedi; Development of HPTLC fingerprint profile of the sterol fraction in few medicinal plants with anti fertility activity; National Seminar on Plant Biology-New Frontiers organized by Bhavans College, Andheri, Mumbai on 7<sup>th</sup> March 2017
7. K. Srilatha Srinivas and **Aparna Saraf**; Genetic diversity analysis of *Oroxylum indicum* (L) Vent , an endangered and important medicinal plant using Inter Simple Sequence Repeat (ISSR) markers; UGC sponsored National Symposium on 'Frontiers in the field of Science, Technology and Sustainability': Elphinstone College, Mumbai, 14-15 Feb, 2014.
8. Aruna Samant and **Aparna Saraf**; Pharmacognostic Study and Establishment of Quality Parameters of root of *Achyranthes aspera* Linn. UGC sponsored

National Symposium on 'Frontiers in the field of Science, Technology and Sustainability': Elphinstone College, Mumbai, 14-15 Feb, 2014.

9. K. Srilatha Srinivas and **Aparna Saraf** : Chemical Fingerprint Profile of Steroids in *Oroxylum indicum* L. Vent by HPTLC: UGC sponsored Second One Day National Symposium on “Modern Research Trends and Applications in Life Sciences” : Elphinstone College, Mumbai, 9<sup>th</sup> February 2013.
10. Archana Ashtekar and **Aparna Saraf**; Pharmacognostic Study and Establishment of Quality Parameters of *Costus speciosus* (Koen). National Conference on “Role of Biotechnology in Conservation and Sustainable use of Medicinal plants”, The Institute of Science, Mumbai, 14<sup>th</sup> – 15<sup>th</sup> December, 2012.
11. K. Srilatha Srinivas and **Aparna Saraf**; Anatomical Study and Establishment of Quality Parameters of leaves of *Oroxylum indicum* (L) Vent. National Conference on “Role of Biotechnology in Conservation and Sustainable use of Medicinal plants”, The Institute of Science, Mumbai, 14<sup>th</sup> – 15<sup>th</sup> December, 2012.
12. **Aparna Saraf** and Alphonso Priya : Profile of Mineral content in *Zanthoxylum rhetsa* Roxb (DC):UGC sponsored “National Conference on Innovative Research Trends in Biological Sciences’ , organized by Shri Shivaji College, Akola, September 8-9, 2012.
13. Alphonso Priya and **Saraf Aparna**; Chemical & Molecular fingerprint profile of Saponins in *Zanthoxylum rhetsa* Roxb (DC) by HPTLC and FTIR techniques; National seminar on technologies for improving productivity of Spices & Plantation ”organized by Central Agricultural Research Institute , Port Blair; 27 - 28 February, 2012.
14. Alphonso Priya and **Saraf Aparna**; Cytotoxic effect of *Zanthoxylum rhetsa* Roxb (DC) plant extracts on *Daphnia magna* and *Glycer dibranchiate* ; National conference on biodiversity organized by Garware College, Pune; 9 - 11 February, 2012
15. K. Srilatha Srinivas and **Aparna Saraf** “Chromatographic Fingerprint Analysis of Essential Oils in *Oroxylum indicum* L (Vent.) collected from different geographical regions of India by HPTLC technique”.National Conference on “Evolution of Research and Development in Bio Sciences “5<sup>th</sup> and 6<sup>th</sup> January, 2012, held at K.C. college, Mumbai.
16. Alphonso Priya and **Saraf Aparna**; Chemical profile studies of the Alkaloids of *Zanthoxylum rhetsa* Roxb(DC) UGC sponsored 2 days National Conference on

“Evolution of Research & Development in Bioscience ”organized by Dept of Life Sciences, K.C. College, Mumbai on 5 -6th January,2012.

17. Priya Alphonso and **Aparna Saraf** (2010) “Preliminary studies towards utilization of various extracts of *Zanthoxylum rhetsa* Roxb (DC) as Anti-solar agent”; Medicinal & Aromatic Plants Association of India (MAPAI) sponsored ‘National Conference on Biodiversity of Medicinal and Aromatic Plants: Collection, Characterisation and Utilisation’, Anand, Gujrat, November 24-25, 2010
18. Dipali Totkekar and **Aparna Saraf** (2010) “Screening of Sun Protecting Activity of *Garcinia indica* Choisy. Seeds”; Medicinal & Aromatic Plants Association of India (MAPAI) sponsored ‘National Conference on Biodiversity of Medicinal and Aromatic Plants: Collection, Characterisation and Utilisation’, Anand, Gujrat, November 24-25, 2010

#### **Awards:**

**1. Best Paper Award (First prize)**

**Aparna Saraf** and Alphonso Priya : Chemical and Molecular Finger print of Saponins in *Zanthoxylum rhetsa* Roxb (DC) by HPTLC and FTIR techniques: “National Seminar on technologies for improving productivity of Spices and Plantation” organized by CARI. Port Blair 27-28 February. 2012.

**2. Best Paper Award (Second prize)**

**Aparna Saraf** and Alphonso Priya : Profile of Mineral content in *Zanthoxylum rhetsa* Roxb (DC):UGC sponsored “National Conference on Innovative Research Trends in Biological Sciences’ , Akola, September 8-9, 2012.

#### **Research Guidance:**

Doctoral Students:

Four students have been awarded PhD Degree

**1) K. Srilatha Srinivas (2014-15)**

“Pharmacognostic, Phytochemical standardization and antifungal studies on *Oroxylum indicum* L. (Vent) – An endangered medicinal plant.”

**2) Aruna Samant (2015-16)**

“Chemical Fingerprinting and Anti microbial studies on *Achyranthus aspera* Linn. From Western Ghats of Maharashtra State.”

**3) Shweta Sankhla (2016-17)**

“Pharmacognostic, Phytochemical and antimicrobial studies on *Tecomela undulata* (Seem.) – An endangered medicinal plant of Rajasthan.”

**4) Pooja Shinde (2017-18)**

Chemical fingerprinting and Antimicrobial studies on *Derris heyneana* (Wight and Arn.) Benth. from Western Ghats of Maharashtra.

**Guided M.Sc. (Paper) students for Research projects:**

- Phytochemical Analysis of Medicinal plant *Zanthoxylum burgunda*.
- Phytochemical Analysis of Medicinal plant *Embelia ribes* Burns.
- Potability of drinking water on Western Railways Stations [in collaboration with NEERI]
- Potability of drinking water on Central Railways Stations [in collaboration with NEERI]
- Investigation on Biochemical component of Halophytic plants with special reference to *Salvadora persica* Linn.
- Studies on Essential oils of few members of family Apiaceae (2006-2007)
- Study of Physiological & Biochemical changes in ripening of *Achras sapota*.
- Phytochemical analysis of Mangrove *Avecennia marina* (Forsk). Vierh
- Studies of some Physico-chemical parameters of streams in and around Kalyan-Ambarnath belt.
- Study of Accumulation pattern of Diosgenin in *Trigonella foenum graecum*.
- Phytochemical analysis of medicinal plant *Gardinia resinifera* roth.
- Phytochemical analysis of *Glycyrrhiza glabra* and its effect on pathogens of respiratory tract.
- Investigation on the phytochemical components of *Piper longum* Linn. and study of its antimicrobial activity.
- Phytoextraction of heavy metals using chelators in *Brassica juncea*.

**Other activities:**

- Expert on the Panel for drafting “Women’s Policy, 2010” for the Government of Maharashtra.
- Advisor on the panel of “Staff Selection Commission” Government of India.

- Member of Board of Studies in Botany University of Mumbai.
- Member on the Academic panel of IUMS (Integrated University Management System)
- Organizing Secretary for One Day National Level Workshop on “Recent trends in Chromatographic Analysis of Phytochemicals” organized in collaboration with Anchrom Enterprises on 21st December, 2017
- Organized One-Day workshop on “Revised Syllabus of M.Sc. Part-II, Botany (Plant Physiology and Biochemistry),” on behalf of University of Mumbai at Department of Botany, The Institute of Science, Mumbai on 12th June 2017.
- Organizing Secretary for “Discover Science Lecture Series” at The Department of Botany, The Institute of Science, Mumbai.
- Completed "Workshop on Extraction and Isolation of Phytoconstituents from medicinal plants/ herbs” specially designed for Faculties and students of Pharmacy/Ayurveda/Herbal Profession/Botany/ Chemistry, organised on Saturday 9th and Sunday 10th December, 2017 from 9.30 am to 5.30 pm at Institute of Chemical Technology (Formerly UDCT), Matunga.
- Referee for evaluation of PhD thesis at RTM University, Nagpur, Shivaji University, Kolhapur, D.Y. Patil University, Navi Mumbai.
- Member on the Panel of Saurashtra University for selection of Ph.D. Guides.
- Subject Expert for placement under CAS at DHE, Pune.
- Government nominee appointed by Joint Director, Higher Education, and Mumbai for appointment of Assistant professor and for Career Advancement Scheme (CAS).
- Chaired a session at National Seminar on Recent Trends in Science & Technology for Sustainable Developments (NSRTSTSD-2018), The Institute of Science, Mumbai.
- Chaired a session at One Day National Conference on Advances in Biological Sciences organized by Department of Botany, Rizvi College of Arts, Science and Commerce, Mumbai, 3rd February 2018.
- Organizing Secretary for One Day National Level Workshop on “HPTLC & Nano Particle Tracking Analysis Technique” in collaboration with ANCHROM, Mumbai on 5th October, 2016.

- Organizing Secretary for One Day interactive session/workshop on “Instrumentation Techniques in Scientific Research” for the students of K.C. College, Mumbai. on 24th October, 2016.
- Organized one day short excursion to Sanjay Gandhi National Park, Mumbai on 30th July, 2016 for M.Sc. Part I & II Botany students.
- Organizing Secretary for One Day National Level Workshop on “HPTLC and hyphenated HPTLC Technique HPTLC-MS” organized in collaboration with Anchrom Enterprises on 14th August, 2015
- Project evaluator for UGC Major Project at KC College, Mumbai. Subject Expert for the PhD interview at KC College, Mumbai
- Project Evaluator for Final Year B.Tech. & M.Tech. projects at D.Y. Patil University, Navi Mumbai
- Invited as a Speaker at “International Conference and Exhibition on Traditional & Alternative Medicine” held on December 9-11, 2013 in Radisson Blu Plaza Hotel, Hyderabad, India
- Invited to deliver a lecture at Dapoli Science College
- Reviewer for Journal of Pharmacy Research, Elsevier Publication, ISSN: 0974-6943
- On the Editorial board of “World Journal of Pharmaceutical Sciences”
- Successfully completed six weeks STP foundation training program for Associate Professors in Higher Education Department, organized by YASHADA, Pune from 16th July to 4th August 2013