

## **CURRICULUM VITAE**

Name: **NEETU HARMUKH**

Designation: Assistant Professor, Botany

Qualification: M.Sc., Botany; Ph.D. (Life Sciences), Post Graduate Diploma in Fabric Arts

Date of Birth: 10<sup>th</sup> January 1976

Postal address: Department of Botany  
Govt. D.B. Girls P.G. College  
Raipur (C.G.)

email: neetu@dbgirls.org

Teaching experience: 09 years

Research experience: 15 years

Areas of interest: Medicinal and Aromatic Plants, Biodiversity Conservation, Taxonomy, Ethnobotany, Bioinformatics

Fellowship: Research Fellowship (Pt. R. S. S. University, Raipur)

Award won: Young Scientist Award, 2004 by Chhattisgarh Council of Science & Technology, Raipur, C.G.

- Project handled & Completed** :
1. European Commission State Partnership Programme, EC- SPP "NWFP based Livelihood Activity Chhattisgarh"
  2. GoI-UNDP-CCF-II project on "Biodiversity Conservation through Community Based Natural Resource Management".
  3. UNDP-GEF assisted project on Mainstreaming Conservation of Medicinal Plants
  4. "Shushrut Van Project" aimed to create awareness on Medicinal Plants, Capacity Building, value-addition, *In-situ* and *Ex-situ* Conservation and Marketing.
  5. National Agricultural Innovation Project on Livelihood in Chhattisgarh Sponsored by World Bank

**Academic career:**

<b>Research papers published:</b>	20
<b>National/International Conference/Symposia paper:</b>	40
<b>General article:</b>	05

**Life member:** Indian Botanical Society

**TRAININGS / WORKSHOP:**

1. **3 weeks training program in Biology at Talent Development center, IISc from 16<sup>th</sup> June to 6<sup>th</sup> July 2019.**
2. **One Day Workshop on "Choice based Credit system at Bilaspur University, Bilaspur 31<sup>st</sup> May 2015.**
3. Training on "**Action Research**" at Hotel Babylon Inn, Raipur, organized by EC-SPP, GIZ Team, 20<sup>th</sup> - 21<sup>st</sup> May, 2014.
4. Exposure- cum training on **effective implementation of the project at UNDP, New Delhi, March 2012.**

5. Training on **Project Management & Participatory Development** organized by H.P. Institute of Public Administration, Shimla July 9th to 13th 2012.
6. Training on **Ethnic Issues and Community Resource Management** at Indian Institute of Forest Management, Bhopal (M.P.), 18-22, January, 2010.
7. Training on **Skill development and Micro-enterprises Management** of beneficiaries targeted under Gol-UNDP CCF-II project entitled "Biodiversity Management and Community based Natural Resource Management" organized by BASIX Livelihood School BHOPAL at Jagdalpur, Kondagaon & Pali, 2010.
8. **Formation of E-Herbarium and GMP certified processing** at MFP PARC, Bhopal **2010**.
9. Training on **Good collection practices for Mahua flower (Madhuca indica)** at Indian Institute of forest Management, Bhopal (M.P.), 09<sup>th</sup> - 11<sup>th</sup> April, 2009.
10. **Plant Species Identifications and Herbarium Methodology at Botanical Survey of India, Allahabad (UP)** 01<sup>st</sup>-05<sup>th</sup> December, 2008.
11. Training on **Self Help Group formation and Strengthening**, organized by Mahila Bal Vikas Prashikshan Santhan, Mahila avum Bal Vikas Vibhag, Bilaspur (C.G.), 15<sup>th</sup> - 17<sup>th</sup> Espt. 2008.
12. Training on **Techniques in Biotechnology**, from **Department of Biotechnology**, Sant Gadge Baba Amravati University, Amravati, Maharashtra, 3<sup>rd</sup> - 17<sup>th</sup> March 2008.
13. **Technology transfer of NWFP Produce** at **Central Food Technological Research Institute (CFTRI) Mysore** during August 2007 and January 2008.
14. **Sustainable harvesting practices, processing, market standards, storage and marketing of pharmaceutically important medicinal plants**, at Chhattisgarh state minor forest produce, Raipur, during **September 2007**. The training was imparted by experts from Dabur, Hindustan Uni Liver Ltd., SFRI Jabalpur and Vanantra Herbals, Vijayavada.
15. **Collection Processing, Storage & Formulation of Herbal Medicine** at **Tamil Nadu Medicinal Plant Corporation Ltd. (TAMPCOL) Chennai** August 2007.
16. **Standardization of herbal drugs'** at the **National Botanical Research Institute, Lucknow, Department of Pharmacognosy**

under the supervision of Dr. S. Khatoon, Senior Scientist (Pharmacognosy) for 3 months, May -July, 2006.

## Publications

### International

1. **Srivivas K; Agrawal K & Harmukh N (2007)** *On-site spectrophotometric determination of antimony in water, soil and dust samples of central India. J. hazardous Materials.*
2. **Harmukh N., & Naik M.L.** (2008) *Seasonal variation in the total alkaloid content in roots of Cocculus hirsutus (L.) Diels (Menispermaceae) In: Advances in Plant Sciences.21 (1)283-285*
3. **Agrawal B; Sharma H.G. & Harmukh N (2008)** *Effect of trickle irrigation along with Micronutrient on growth and yield of Tomato F<sub>1</sub> hybrid Avinash-2. Advances in plant science 21(1):299-302.*
4. **Shukla R, Goutam M P, Harmukh N, Shrivastava A. 2008.** Herbal Medicine for the Treatment of Jaundice among the People of Chhattisgarh, India, ***Tribal Health Bulletin, Vol. 14 (1&2): 45-49.***
5. **Harmukh N.; Naik M.L.; Sinha S. & Shukla R. (2009)** *Seasonal Variation in the Total Alkaloid content in roots of Cissampelos pareira L. an important Medicinal climber of Chhattisgarh State. The Ecotech 1(2):130-132.*
6. **Shukla R. & Harmukh N. (2009)** *Indigenous medicine of the Baiga tribe of Marvahi, Chhattisgarh, India. J. of Medicinal & Aromatic Plant Sciences 31 (4):316-320.*
7. **Shrivivas S.; Agrawal K. & Harmukh N. (2009)** *Trace level determination of molybdenum in environmental and biological samples using surfactant-mediated liquid-liquid extraction. J. hazardous Materials ...: 325-329.*
8. **Agrawal B. & Harmukh N. (2010)** *Nutrient uptake affected by irrigation methods and micronutrient application in Tomato F-1 hybrid Avinash -2. International J. of Current Trends in Science & Technology, Vol. (II):20-26*
9. **Bala S. & Harmukh N. (2010)** *Ethnomedicinal practices in Kanger Valley national Park. In: Folk Medicine Folk Healers and Medicinal plants of Chhattisgarh, Edited by Dr. R.N.pati*
10. **Agrawal B. & Harmukh N. (2011)** *Effect of trickle irrigation and micronutrient on shoot & root development of Tomato F-1 hybrid Avinash -2. International J. of Current Trends in Science & Technology.*
11. **Shukla S. & Harmukh N. (2012)** *Folk medicinal claims for the treatment of Arthritis in Chhattisgarh, India, Tribal Health Bulletin. Vol.15 No. (1&2):26-30.*

12. **Shukla S. & Harmukh N. (2013)** *Medicinal Plants used by Traditional Healers in Dantewada District of Chhattisgarh, India.*, *The Biosphere* **Vol.5(2): 109-111.**
13. **Shukla R, Harmukh N, Shrivastava A K. 2013.** Medicinal Plants used by Traditional Healers in Dantewada District of Chhattisgarh, India. *The Biosphere, Vol. 5 (2): 109 - 111.*
14. **Harmukh N. & Stephene I (2014)** *SAARC Forestry J. Biodiversity Conservation through Community based Natural Resource Management (CBNRM):A success Story on supporting livelihood of forest dwellers through microenterprise of Mahul Leaves in Katghora Forest Division in Chhattisgarh, India. 55-60*
15. **Shukla R, Harmukh N, Pandey N K. 2014.** *Gardenia turgida* Roxb. (Kharhar) an Important Medicinal Plant of Chhattisgarh, India. *The Journal of Ethnobiology and Traditional Medicine. IF - 3.17.*
16. **Sristava A. & Harmukh N. 2018.** Diversity of Macrophytes of Khamardih Pond Raipur (C.G.): Need for sustainable Management. *IOSR Journal of Environmental Science, Toxicology and Food Technology. Vol. 12, Issue 3.*
17. **Kritika Jyoti Namdeo, Neetu Harmukh & V.K. Kanungo 2018.** Effect of Auxins on Primary Metabolites of *Solanum xanthocarpum* Schard & Wendl. *IOSR Journals (International Organization of Scientific Research) Vol 13, Issue No. 6, ISSN 2278-3008*
18. **Rajesh Shukla & Neetu Harmukh. 2020.** *Gardenia turgida* roxb. (kharhar) an important medicinal plant of Chhattisgarh, India.. **International Journal of Advance Research and Innovative Ideas in Education, Volume-6 Issue-4 ISSN(O) : 2395-4396.**
19. **Krishna Kumar Patel, Sarita Patel, Neetu Harmukh & Akanksha Gupta 2021.** Increasing Antimicrobial Resistance for Uropathogens: Fosfomycin. *European Journal of Biotechnology and Bioscience. [www.biosciencejournals.com](http://www.biosciencejournals.com). ISSN:2321-9122. Vol.9, Issue 2, Pg. No. 18-21.*

### National

- **Harmukh N.; Das S.; Naik M.L. & Sinha S. (2003)** Medicinal Plants of Chhattisgarh. In: Proceedings of the National Seminar on Science Technology & water with Special Reference to Chhattisgarh, pp 65-82.
- **A.K.Shrivastava & N. Harmukh (2011)** Biodiversity Conservation through Community based Natural resource Management. In Biodiversity Forever: A Souvenir to Mark The International year of Forest & 150<sup>th</sup> Anniversary of Forest Department in India, published by the Forest Department Chhattisgarh, pp81-87

### **Book/Book Chapter:**

- Neetu Harmukh 2020. “MEDICINAL PLANTS AND THEIR USES IN NATURAL IMMUNITY IMPROVEMENT WITH SPECIAL REFERENCE TO COVID-19”,

**Research Interventions and Advancement in Life Sciences** ISBN: 978-93-88901-14-7  
Pg No. 169 – 174. Bhumi Publishing, Nigave Khalasa, Kolhapur 416207, Maharashtra,  
India, Website: [www.bhumipublishing.com](http://www.bhumipublishing.com).

### **Brochures', Booklets, Leaflets & Case study**

- **Brochure:** An over view of the Project highlighting sustainability of the results achieved under the Project ' Biodiversity Conservation Through community Based Natural Resource Management'.Community involvement in Conservation.
- **Booklet:** Non-destructive harvesting & primary processing of Minor Forest Produces.
- **Leaflets:**
  - 1) Herbs and Their Formulations used By Traditional Healers/Vaidya of Baiga, Gunia and Sirha Tribes of the three forest divisions of Chhattisgarh.
  - 2) izkd` frd lalk/kuksa ds leqnk; vk/kkfjr izca/ku ls tSo fofo/krk laj{k.k ifj;kstuk
- **Case study:** Supporting livelihood of Forest dwellers through Micro-enterprise of Mahul Leaf and Building livelihood opportunity through collective actions of self-help groups at Jeeragaon.

### **Books/ Editor in book**

- यूरोपियन कमीशन द्वारा पोषित अकाष्ठीय वनोपज आधारित रोजगारोन्मुखी कार्य परियोजना से संबंधित एक दृष्टि में: छत्तीसगढ़ राज्य की परंपरागत चिकित्सा पद्धति, प्रकाशक छत्तीसगढ़ राज्य लघु वनोपज (व्यापार एवं विकास) सहकारी संघ मर्यादित, रायपुर (छ.ग.), 2014<sup>व</sup> ;न्दकमत च्जइसपबंजपवदद्ध
- यूरोपियन कमीशन द्वारा पोषित अकाष्ठीय वनोपज आधारित रोजगारोन्मुखी कार्य परियोजना से संबंधित छत्तीसगढ़ राज्य के वानस्पतिक प्रजातियों का संसाधन सर्वेक्षण प्रतिवेदन, प्रकाशक छत्तीसगढ़ राज्य लघु वनोपज (व्यापार एवं विकास) सहकारी संघ मर्यादित, रायपुर (छ.ग.), 2014<sup>व</sup>
- कच्चे लघु वनोपज के विनाश विहीन विदोहन, प्राथमिक प्रसंस्करण, भंडारण, विपणन एवं गुणवत्ता मानक, प्रकाशक छत्तीसगढ़ राज्य लघु वनोपज (व्यापार एवं विकास) सहकारी संघ मर्यादित, रायपुर (छ.ग.), 2014<sup>व</sup>

### **Technical Reports**

- **Final Technical Report under the project UNDP-GOI-CCF-II PROJECT on Biodiversity Conservation Through Community Based Natural Resource**

**Management in Chhattisgarh (September 2008 - December 2013) by the Chhattisgarh State Minor Forest Produce (T&D) Co-operative Federation Limited, Raipur (C.G.): Submitted 2013.**

**Papers presented in conferences**

- **Harmukh N. & Naik M.L.** (2001) Chemical Analysis of a rare Medicinal Plant *Cissampelos pareira* L., In: national Seminar on Natural Plants as Medicines – application and Resources in Chhattisgarh, December 2&3, p44, **Kawardha.**
- **Harmukh N. & Naik M.L.** ((2002) Chemical analysis of a Medicinal Plant *Cocculus hirsutus* (L.) Diels. In: National Seminar on Science Technology and Water; Problems and Solutions for Chhattisgarh, April 29-30, 2002, pg. 42, **Raipur.**
- **Harmukh N. & Naik M.L.** (2002) *In vitro* regeneration of *Cocculus hirsutus* L. (Diels): A medicinal Plant. In: Innovations and Prospects in Life Sciences, December 14-16, pg. 48, **Raipur.**
- **Harmukh N.** (2002) Phytochemical analysis of *Cocculus hirsutus* (L.) Diels. In: 1<sup>st</sup> Chhattisgarh Young Scientist Congress, Sept 2&3, 2002 pg. 23, **Raipur.**
- **Harmukh N.** (2004) Seasonal variation of alkaloid in the roots of *Cocculus hirsutus* (Linn.) Diels: A Medicinal Plant. In: 2<sup>nd</sup> Chhattisgarh Young Scientist Congress, February 28-29, 2004, p27 **Bilaspur.**
- **Harmukh N.** (2005) Roots of *Cissampelos pareira* L. An Important Medicinal Climber of Chhattisgarh State, In: National seminar on Medicinal and Aromatic Plants – Biodiversity, Conservation, Cultivation and Processing, February 26-27, 2005, p153, **Raipur.**
- **Harmukh N., Naik, M.L. & Sinha, S.** (2005) Medicinal Properties and Conservation of *Baliospermum montanum* (Willd.) Muell. Arg. A threatened Medicinal Plant, In: Emerging technologies and their application in assessment, conservation and management of threatened wild medicinal plants & their habitats, February 23-24, 2005, at Tropical forest research Institute, **Jabalpur.**
- **Harmukh N., Naik M.L. & Sinha S.** (2005) *Cissampelos pareira* L. an important medicinal climber of Chhattisgarh, In: National Symposium on Biodiversity: Current status and Prospects, October 17-18, 2005, p83, **Raipur.**
- **Harmukh N.** (2008) Pharmaceutically important medicinal plants of the Chhattisgarh. In: National seminar on Botanical researches: Present scenario & Future Prospects 29<sup>th</sup> & 30<sup>th</sup> January 2008, p57, Raipur.
- **Bala S. & Harmukh N.** (2010) *Ethnomedicinal practices in Kanger Valley national Park.* In: First international Conference on Conservation, Marketing and Patenting of Medicinal Plants (ICCMP) March 14-15, 2010, Raipur.
- **Krishna Rao J.V; Yadav G.S.; Mahobia G.P.; Rao K.V.S.; Harmukh N.; Rao M. & Prasad B.C.** (2011) Conservation of Tasar ecorace- Raily through Community based Natural Resource Management. National conference on "Sericulture Innovations before and Beyond" at Central Sericultural research and Training Institute, Mysore January 28-29, 2011, **Mysore.**

- **Harmukh N.; Krishna Rao J.V. & Singh A.K. (2011)** Non Wood Forest Produce: Biodiversity Conservation and Involvement of Communities- Experiences under GoI-UNDP Assisted CBNRM Project. International Conference on Non-Wood Forest Produce for Sustained Livelihood, 17-19 December 2011, Bhopal-India, pp-15.
- **Harmukh N.; Krishna Rao J.V.; Yadav G.S.; Aditya Dinesh & Singh A.K. (2011)** Non Wood Forest Produce: Conservation of Raily Tasar Eco-race, An Important NWFP of Bastar, Chhattisgarh, International Conference on Non-Wood Forest Produce for Sustained Livelihood, 17-19 December 2011, Bhopal-India, pp-84.
- **Harmukh N & Shukla R. 2011.** Community Based Medicinal Plants Conservation Approach in Chhattisgarh, *In National Seminar on Effect of Pollution on Global Health organized by Shri Shankaracharya Mahavidyalaya Bhilai nagar (C.G.): pp 21.*
- *Participated in the Policy Meet on AYUSH Herbal Resource Management organized by Department of Ayurved, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH), Chhattisgarh, May 2011.*
- *Participated in the Regional Consultation Workshop on Review of Nation Guidelines for JFM with a stronger Focus on the Conservation and Sustainable use of Medicinal Plants organized by International Centre for Community Forestry, IIFM Bhopal held at CGSIRD Raipur, Chhattisgarh, July 2011.*
- *Participated in the National Workshop cum Conference on Marketing of Non Timber Forest Products Issues and Strategies organized by Tropical forest research institute, Jabalpur at CG State Minor Forest Produce Co. Fed. Raipur (CG), November 2011.*
- **Shukla R & Harmukh N. 2012.** Folk Medicines of Asthama in Central Chhattisgarh, *In National Seminar on Life Style Diseases: Issues, Concerns and Management by Department of Home Science, Govt. Autonomous Girls College of Excellence Sagar (M.P.).*
- **Shukla R.; Harmukh N. & Pandey N. (2013)** *Gardenia trugida Roxb. (Kharhar) an important medicinal plants of Chhattisgarh, India:* In International Conference and Exhibition on Traditional & Alternative Medicine, December 09-11,2013, Radission Blu Plaza Hotel, Hyderabad, India.
- *Participated in the National Brainstorming workshop on Medicinal & Aromatic Plants and NTFP's organized by Indra Gandhi Agriculture University, Raipur, May. 2014.*
- **Shukla R, Harmukh N & Pandey N K. 2015.** Ethnomedicinal use of *Achyranthes aspera* L. in Chhattisgarh, India, *A National Workshop cum Seminar on Frontiers in Ethnomedicinal Research (Traditional to Transitional) organized by Faculty of Science, Indra Gandhi National University, Amarkantak (M.P.), India.*
- **Harmukh N; Gupta S; Pandey N.K. & Quireshi A. 2015.** Community involvement in Non-Destructive Harvesting Practices of Medicinally important



**MFPs in Chhattisgarh** 2<sup>nd</sup> International Congress of Society for Ethnopharmacology scheduled on February 20-22, 2015.