

CURRICULUM VITAE

Name : **Pramila Tripathi**
Husband's Name : Dr.A.K.Shukla
Date of Birth : January 26, 1972
Address : Professor
Department of Botany
D.A-V. P.G. College, Kanpur
Phone :9935158688,
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Educational Qualifications:

- Ph.D in Botany,2001,Banaras Hindu University,Varanasi
(Thesis Title- *Evaluation of some plant products against fungi causing post harvest diseases of some fruits*)
- NET(CSIR) Life Science,(2000)
- M.Sc.(1996), Kumaun University, Nainital with First Division (71.50%)
- B.Sc.(1994), Kumaun University, Nainital with First Division (62.44%)
- Intermediate (1990), U.P.Board with First Division (63.00%)
- High School (1988),U.P. Board with First Division (60.44%)

Award Received:

- **Young Scientist Award**
(Conferred by Council of Science & Technology, UP in 2007)
- **DST Young Scientist Fast Track, July, 2003**

Scholarships Received:

- DST Young Scientist, July,2003
- Senior Research Fellowship of CSIR, April,2000
- BHU Research Scholarship, Sept.1997

Courses attended

- **48th Orientation Course** (March 4th -31st, 2008) Organized by UGC-Academic Staff College,Banaras Hindu University.Varanasi
- **Ist Interdisciplinary Plant Sciences Refresher Course**,Nov.22nd to Dec 13th 2011,Academic Staff College, Banaras Hindu University, Varanasi
- **2nd Refresher course** in life Sciences (Interdisciplinary), Nov.19th to Dec. 09th , 2013,Academic Staff College, Banaras Hindu University, Varanasi
- **UGC Sponsored Short Term Course** ,Nov.04 to Nov10, 2016, Human Resource Development Centre, University of Lucknow

Research and Teaching Experience:

(a).Research experience : **18 Years**
(i) Doctoral : 4 Years
(ii) Post Doctoral : 14Years

(b) Teaching Experience : **19years**

- (i). BSc.Classes during the session 2003-2004 at the Department of Botany Banaras Hindu University, Varanasi.
- (ii). BSc.Classes during the session 2004-2005 at the Botany section Mahila Maha Vidyalaya, Banaras Hindu University, Varanasi.
- (iii). BSc and MSc.Classes during the period 2005- Till Date at the department of Botany, D.A.V.College Kanpur.

Present Status : **Professor**
 Department of Botany, D.A.V. - P.G. College,
 Kanpur – 208001

Previous Positions held

- Joined The Department of Botany,D.A-V College Kanpur as Assistant Prof. Stage 1 on 24th Aug.2005
- Promoted to Assistant Prof.Stage 2 on 24th Aug 2009
- Promoted to Assistant Prof.Stage 3 on 24th Aug 2014
- Promoted to Associate Prof Stage 4 on 24th Aug 2017
- Promoted to Professor in I Nov. 2021

Field of Research : Mycology, Botanical
 Pesticides, Bioprospecting

Membership : (i).The Indian Botanical Society
 (ii). Life membership of International Society for Conservation of Natural Resources
 (iii).Indian Phytopathological Society
 (iv).Life membership of Indian Science Congress Association

TECHNICAL SUMMARY:

Fungal isolation, maintenance of fungal cultures, fungal taxonomic characterization, antifungal testing of natural products with standard technique, Column Chromatography, TLC, Co-TLC, and Prep-TLC ,HPLC for isolation of active principle, IR,UV,¹HNMR,¹³CNMR,Mass spectra, for structure standardization of active constituents of plants. GC-Ms and GLC and other techniques for physico-chemical standardization of essential oils, Pharmacological trials with natural products, *in vivo* techniques for the standardization of natural products for enhancing the shelf life of perishables.

CURRENT RESEARCH INTEREST:

Evaluation of potency of plant products in protection of perishables from post –harvest fungal deterioration. *In vitro* screening of plant extracts and essential oils. Standardization of

essential oils through physico-chemical and fungitoxic properties. GC-MS of essential oils. Recommendation of essential oils as post harvest botanical fungitoxicants of higher plant origin for the enhancement of shelf life of perishables on the basis of safety limits, pharmacological trials and residual toxicity. Phytochemistry of pesticidal plants, chemical profiling, isolation and standardization of active principle as botanical pesticidal agents determination of cost benefit ratio. Phytochemical investigation of treated commodity to see the non mammalian nature of the product. Biochemical investigation with the treated perishables to see the chemical changes of various parameters. Organoleptic tests with the treated perishables. The effective products will be tried for PATENT.

PROJECTS:

➤ M.Sc. Dissertation :Topic-“Antifungal activity of common Hepatics of Kumaun Hills”

Antifungal activity of aqueous, acetone and ether soluble extracts of *Marchantia polymorpha* L., *Plagiochasma appendiculatum* L. and *Conocephalum conocum* L. Dum was tested against *Macrophomina phaseolina*. Prominent antifungal activity was recorded in acetone soluble extracts of all the three liverworts. Due to the presence of antifungal compounds in acetone soluble extract of liverworts the colour, growth and vegetative structures were badly affected. Ether soluble extract of liverworts was found to contain growth promoting activity towards *M. phaseolina*. Healthy black coloured mycelia having rapid growth were observed in ether soluble extracts. The acetone soluble extracts of liverworts were inhibited the sclerotia germination. The germinated sclerotia produced a number of secondary and tertiary sclerotia under the influence of acetone soluble extracts of liverworts.

➤ SRF (CSIR) and Ph.D.Thesis work- Topic –“Evaluation of some plant products against fungi causing post harvest diseases of some fruits”

Some plant extracts and essential oils of higher plant origin were screened against the test pathogen *Penicillium italicum*. *Acacia nilotica*, *Mentha arvensis*, *Ocimum canum* and *Zingiber officinale* were found to be active against the test pathogen. The aqueous extract of *A.nilotica* and essential oils of *M. arvensis*, *O. canum* and *Z. officinale* were protected the citrus fruits from the fungal rotting caused by the test pathogen and thereby enhanced the shelf life of oranges and lime fruits significantly. The phytochemical investigation of the bark of *A.nilotica* resulted in the isolation of six compounds viz sitosterol, α amyryl, naringenin-5-methyl ether, kaempferol, kaempferol-3-O-rhamnoside and myricetin-3-O-rhamnoside. **The compounds viz. kaempferol, kaempferol-3-O-rhamnoside and myricetin –3-O-rhamnoside were reported for the first time from *A.nilotica* bark.** Kaempferol was selected as active principle. The structure of all these compounds were standardized through IR,UV,¹HNMR ¹³ CNMR and mass spectroscopy. The essential oils were standardized through fungitoxic and physicochemical properties and GLC. The pharmacological testing with the essential oils was also performed and it was established that these oils have non mammalian toxicity. The efficacy of oils were also compared with some prevalent fungicides and these were found to be more efficacious in the protection of fruits from fungal rotting.

➤ DST Young Scientist Project -Topic-“Studies on some higher plant products as Botanical pesticides in enhancing the shelf life of some fruits by protecting them from fungal rotting” of amount Rs.912000/ in 2003.

- **Project was not completed as I joined the Dept of Botany ,DAV College, Kanpur in Aug,2005**
- **Minor Research Project Sanctioned by CSJMU Kanpur, *Topic-Screening of extracts and essential oils of common angiospermic taxa of Kanpur for antifungal activity against fruit rotting fungus Botryodiplodia theobromae Pat* of amount Rs.100000/- for a duration of one year . Project was sanctioned in 2017 .The project was successfully completed in 2018.**

Research Guidance

**Mrs Alka Rani registered for Ph.D
Registration No. 15060011
(Thesis in writing phase)**

Topic- Management of post harvest fungal diseases of brinjal (*Solanum melongena* L.) and chilli (*Lycopersicon esculentum* L.) by selected plant extracts and essential oils.

Research work done so far:

Some essential oils of higher plants and the plant extracted in different organic solvents have been screened for their anti-fungal activity against *Penicillium italicum*. The essential oils were isolated by Clevangers apparatus and were standardized by different physico-chemical and fungitoxic properties such as MIC, increased inoculum density, shelf life, nature of toxicity, antifungal spectrum and comparison with some prevalent antimycotic drugs. The essential oils were found to be non mammalian toxic when used in the management of blue mould rot of oranges. The active principles were isolated from the bark of *Acacia nilotica* with the help of Column chromatography and preparative TLC. Kaempferol, and Kaempferol-3-O-rhamnoside, myrecetine-3-O-rhamnoside, Narengnine-5-methyl ether and sitosterol were isolated and standardized by mixed melting point, Co-TLC and superimposable IR spectrum with the authentic specimen and through NMR, mass spectroscopy, UV spectrum etc. Kaempferol, and Kaempferol -3-O-rhamnoside and myrecetine-3-O-rhamnoside were reported for the first time from the *Acacia nilotica*.

Paper Published: 43, Under publication: 2

Research Papers

1. Dubey,N.K., **Tripathi, P.** & Singh,H.B. (2000).Prospects of some essential oils as antifungal agents. *Journal of Medicinal and Aromatic Plant Sciences* **22**:350-354.[ISSN:0253-7125;CIMAP,India] .
2. **Tripathi, P.** & Dubey, N.K. (2001). *Acacia nilotica* Phytochemical and Biological properties. *Journal of Econ. Taxon. Bot.* **25**: 1-6.[ISSN:0250-9768.Scientific Publishers,India].
3. Dubey,R.C., Vashishta,H., **Tripathi, P.** & Tiwari,S.D.(2001). Antifungal activities of three Hepatics against *Macrophomina phaseolona*. *Indian Phytopathology* **54**: 264-266.[ISSN:0367-973X:Indian Phytopathological Society].**Scopus**
4. **Tripathi, P.**, Dubey, N.K. & Pandey, V.B.(2002). Kaempferol the antifungal principle of *Acacia nilotica* Lin Del. *Journal of Indian Botanical Society* **81**: 51-54.[ISSN:0019-4468;Indian Botanical Society].**Web of Science**

5. **Tripathi, P.** & Dubey,N.K.(2003).Evaluation of some plant extracts in the management of blue mould rot of mandarin oranges. *Indian Phytopathology* **56**: 481-483.[ISSN:0367-973X;Indian Phytopathological society] **Scopus**
6. Dubey,N.K, Kumar, R. & **Tripathi, P.**(2003). Global promotion of herbal medicine: India's opportunities. *Current Science* **86**:101-105.[ISSN:0011-3891;Indian Academy of Sciences].**Scopus**
7. **Tripathi, P.** & Dubey N.K. (2004). Exploitation of natural products as alternative strategy to control post harvest fungal rotting of fruits and vegetables . *Post harvest biology and Technology* **32**: 235-245. [ISSN:0925-5214;Elsevier, New Zealand].Cited by **133 related articles**. **Scopus**
8. **Tripathi, P.**, Dubey, N.K., Banergi, R. & Chansouria, J.P.N (2003). Evaluation of some essential oils as botanical fungitoxicants in management of post- harvest rotting of citrus fruits. *World Journal of Microbiology and Biotechnology* **20**:317-321 [ISSN:0959-3993,Springer, Netherlands] **Scopus**
9. Shukla, A. K. & **Tripathi P.** (2007). Distribution of microfungal communities in forest soil. *Indian Forester* **133**: 1128-1132.[ISSN:0019-4816,Scientific Publisher,India]. **Scopus**
10. **Tripathi P.**, Dubey N. K. & Shukla A. K. (2007). Pharmacological evaluation of some fungitoxic essential oils. *Asian Journal of Traditional Medicines* **2**: 239-243. [ISSN:1340-6320.China)
11. **Tripathi P.** & Shukla A. K. (2007). Emerging non conventional technologies for control of post harvest diseases of perishables. *Fresh Produce* **1**: 111-120 [ISSN:1749-4788;Global Science, Japan].
12. Shukla, A. K. & **Tripathi P.** (2008). Micro fungal diversity of paddy field soil. *International Journal of Bioscience Reporter* **6**: 21-23.[CAB,India].
13. **Tripathi, P.**, Dubey, N. K. & Shukla A. K. (2008). Use of some essential oils as post-harvest botanicals fungicides in the management of grey mould of grapes caused by *Botrytis cinerea*. *World Journal of Microbiology and Biotechnology* **24**: 39-46. [ISSN:0959-3993;Springer ,Netherlanads).Cited by **18 related articles**.**Scopus**
14. **Tripathi, P.**, Dubey, N. K. & Shukla A. K. (2009). Application of essential oils for control of stem end rot of mango fruits during storage *International Journal of Post harvest Technology and Innovations* **1(4)** 405-415 [ISSN:1744-7550; Inderscience Pub., Switzerland). **Scopus**
15. Shukla, A. K., Taying B. & **Tripathi P.** (2010). Studies on amylase producing microbes. *Advances in Plant Science* **23: (II)** 411-412. [ISSN:0970-3586.] APS,India.**Web of Science**
16. Shukla, A. K., Tayeng Y. & **Tripathi P.** (2010). Isolation and activity measurement of phosphate solubilizing bacteria and fungi. *Advances in Plant Science* **23(II)**: 413-414. [ISSN:0970-3586.APS,India]. **Web of Science**
17. Singh ,R & **Tripathi ,P** (2015). *Cinnamomum zeylanicum* essential oil in the management of Anthracnose of Banana Fruits. *Journal of Innovations in Pharmaceuticals and Biological Sciences.* **2** (3), pp.290-299.[ISSN (on line) 2349-2759,ISSN (print) 2395-1095] **International Scientific Indexing, Impact Factor- 0.75 (2014)**
18. **Tripathi,P** & Singh,R (2015). Antifungal activity of *Acacia nilotica* extracts in control of *Colletotrichum gloeosporioides* [penz.] fungi causing anthracnose of mango fruits. *International Journal of Current Research*, **7,(7)**, pp.17706-17712.[ISSN- 0975-833X].
19. **Tripathi,P** (2015). Antifungal activity of essential oil and leaf extract of *Adenocalymma alliaceum* and its role in management of stem end rot disease of mango fruits caused by fungal pathogen *Botryodiplodia theobromae*. *Annals of Plant Science* **4(7)** 1143-1152 ISSN 2287-688X.

20. **Tripathi.P.**(2016).Pharmacological evaluation of essential oils of *Ocimum sanctum*, *Prunus persica* and *Zingiber officinale*. **Journal of Innovations in Pharmaceuticals and Biological Sciences** 3(2).7-11 [ISSN (on line) 2349-2759,ISSN (print) 2395-1095]
21. Habung Y, **Tripathi P** and Shukla AK (2016) Efficacy of Some Essential Oils against Post-Harvest Fungal Diseases of Kiwifruits. **International J. Adv. Agricult. Sci. Technol.** 3(4) 1-12. [ISSN: 2348-1358]
22. **Tripathi P**, Habung Y and Shukla AK (2016) Evaluation of Antifungal Activity of *Artimesia*, *Litsea* and *Mikania* Essential Oils against Post-harvest Fungal Diseases of Kiwifruits. **Int. J. Curr. Microbiol. App. Sci** 5(9): 19-29. ISSN2319-7692(print), 2319-7706 (online)
23. **Tripathi P**, Habung Y and Shukla AK (2016).Impact of Essential oils on growth of phytopathogenic fungi responsible for rotting of fruits. **Journal of Advances in Biology and Biotechnology** .10(2),1-10. ISSN2394-1081
24. **Tripathi P.**(2016). Efficacy of essential oil of *Zingiber officinale* (ROSC) in preservation of orange (*Citrus sinensis* (L.)OSBEC fruit against rotting fungi.**International Journal of current Agricultural Sciences** 6(9)108-114. ISSN 2277-1026
25. Shukla, A,K,Tripathi, P.(2017). Response of Pine seedlings with various ectomycorrhizal fungi in organic amended soils. **International journal of Science and Research** 6:(6) 2839-2844
26. **Tripathi,P.**,Shukla A.K(2018).Evaluation of Antifungal Activity of **Litsea cubeba** Plant Extract and Essential Oil against Phytopathogenic Fungi *Botryodiplodia theobromae*, **International Journal of Advances in Agricultural Science and Technology**, 5 .(12) 55-65 ISSN: 2348-1358 NAAS Rating: 3.77
- 27.**Tripathi,P.**Shukla,A.K.(2018).Herbicide impact on the growth of *Alternaria alternata* and morphological variation in spores under *in vitro* condition **Int Jour.of Science and Research** 7(4)1783-1786.
- 28.**Tripathi P.**,Shukla A.K. (2019).Assessment of *in vitro* Antifungal Prospective of Fungicides against *Alternaria alternata*, A Causal Organism of Potato Brown Spot and Early Blight Disease. **International Journal of Advances in Agricultural Science and Technology**, 6(10), 62-71 ISSN: 2348-1358 NAAS Rating: 3.77
- 29.**Tripathi,P.** Shukla A.K. (2020).Advancements in Soil Nutrient Sensing for Real Time Nutrient Management based Recommendation System. **International Journal of Advances in Agricultural Science and Technology**, 7 (11), 157-168 ISSN: 2348-1358 NAAS Rating: 3.77
- 30.**Tripathi,P.**,Shukla,A.K.(2020).Recommendation of fertilizers for pearl millet using statistical and machine learning approaches. **Journal of Emerging Technologies and Innovative Research**7 (4).919-930.
- 31.Nigam R.**Tripathi,P.**,Kushwaha,A.,Harshita (2021).Role meteoriological [arameters on the development of *Alternaria* blight of Indian mustard.**Annals of Plant Protection Science** 29;102-105 (ISSN:0971-3573 Print;0974-0163 online
- 32.**Tripathi.P.**,Yami,H. and Shukla A,K.(2021).Determination of anifungal activity against phytopathogenic fungi by essential oils extracted from some medicinal plants. **Biopesticides International**.17;(ISSN:973-483x)1-9. **Scopus**
- 33.**Tripathi,P.**,Bordoloi,A.,Shukla,A.K.(2022).Plantlets growth of *Piper mullesua* Buch.-Ham.ex.Don.in organic manure amended soil inoculated with arbuscular mycorrhizal fungi **Indian J.Applied & Pure Biology** 37 (1) 245-257.**Web of Science**

34. Rani,A.,**Tripathi, P.**(2022).Antifungal activity of essential oils of *Melaleuca alternifolia*, *Psidium guajava* and *Zingiber officinale* in the management of grey mould of chilli.**Res.Jr of Agril.Sci** 13(4) 1201-1205.(ISSN) 0976-1675.**UGC Care Group 1**
- 35.**P.Tripathi,P.**(2022).Efficacies of botanicals in the management of stem end rot disease of mango fruits. **Journal of Biopesticides.** 15(1):000-0 (ISSN/eSSIN) 0974-391X / 2230-8385. **Web of Science**
36. Rani,A.,**Tripathi,P.**(2022). *In vitro* and *in vivo* antifungal activity of some plant extracts against Gray mould rot of Chilli.**Gorteria** 35(1) 14-26(ISSN) 0017-2294.**Web of Science**
37. **Tripathi,P.**Bordoloi,A.,Shukla A.K. (2022). Diversity of vesicular and arbuscular mycorrhizal fungi in different land use systems. **Journal of Biodiversity and Environmental Science** 20(4) 72-79. (ISSN) : 0970-2091. **Web of Science**

Book Chapters

1. Dubey,R.C.,Pandey,S & **Tripathi,P.** (1998). Influence of nutrients on formation and growth of ectomycorrhiza. In: *Trends in Microbial Exploitation* (eds. B. Rai, R.S.Upadhyay and N.K.Dubey).56-70.
- 2.Dubey N.K. & **Tripathi, P.** (2000).Prospectives of Indian Flora as pesticidal plants. In: *Recent Trends in Botanical Researches* (ed. D.K.Chauhan). 285-291.
- 3.**Tripathi, P.**Dubey,N.K. & Prafull Kumar .(2006). Evaluation of some essential oils for their fungitoxicity against *Penicillium expansum* (Link), In: *Recent Advances in Mycological Research* (Eds. Sati .S.C. et al.)120-128.[I.K. International, New Delhi (India)]
- 4.**Tripathi, P.** (2007). Biologicals and Biorationals in the management of agricultural insect pests - An ecofriendly approach. In: Seed borne diseases: Ecofriendly management (Eds. Arya, A. and Monaco C), Scientific Publishers, Jodhpur (India) pp.171-189.
- 5.**Tripathi, P.** & Shukla A. K. (2010). Exploitation of botanicals in the management of phytopathogenic and storage fungi. In: Management of fungal Pathogens: Current Trends in Progress (Ed. A. Arya),36-50. [ISBN: 9781845936037] **CAB International, UK.**
- 6.Shukla, A.K.,Yongam Y &**Tripathi P.** (2012).Distribution of endophytic fungi in different parts of (*Elaeocarpus sphericus*) plants In:Microbes: diversity and Biotechnology (Eds.S.C.Sati & M.Belwal) 37-42. [ISBN 9788170357940]
- 7.**Tripathi, P**& Shukla, A.K. (2015). Potential Use of Essential Oils, Plant Fats and Plant Extracts as Botanical Fungicides. In: *Sustainable Crop Disease Management using Natural Products* (eds G. Sangeetha, V. Kurucheve and J. Jayaraj) pp. 19-35. **CAB International (UK).** [ISBN-13. 978-1780643236].

SEMINAR / SYMPOSIA ATTENDED:

- 1.Seminar on Herbal and Microbial Pesticides, Feb,14-16,1997.Department of Botany,Banaras Hindu University, Varanasi . **Presented Paper** on the topic “*Antifungal activity of some hepatics against Macrophomina phaseolina (Tass.)Goid.*”
- 2.National Seminar on Bioinoculants for Holistic sustainable Rural Developments,Sept.23-25,1998. Deptt of Botany and Microbiology,Gurukula Kangri University,Haridwar. **Presented Paper** on the topic “*Antifungal properties of some plant extracts and efficacy of Acacia nilotica in Management of blue mould rot of oranges*”

3. Silver Jubilee Conference of Indian Botanical Society 27th-29th Oct. Department of Plant Sciences, MJP Rohilkhand University, Bareilly. **Presented Paper** on the topic “*Some essential oils as Botanical Fungitoxicans in management of Post harvest rotting of Fruits in the Section of Young Botanist Award.*”

4. National Symposium on Cyanobacteria and Plants under environmental stress : responses, defense strategies and biotechnological prospects. Feb. 25-27, 2003. Department of Botany, Centre of advanced study, Banaras Hindu University- Attended the Symposium.

5. National seminar on Impact of increasing Human Population on Natural Resources (IPN) Oct. 16-18, 2003. Department of Botany, Centre of advanced study, Banaras Hindu University- Attended the Symposium.

6. National Seminar on Issues in Plant Sciences. March, 9-10, 2004. Department of Botany, Centre of Advanced Studies in Botany, Banaras Hindu University Varanasi.

7. Twenty Sixth All India Botanical Conference, Dec. 29-31, 2003. Department of Botany, Jamia Hamdard University, New Delhi. **Presented Paper** on the topic “*Efficacy of some plant products as Botanical Pesticides Based on Practical applicability and non mammalian Toxicity*”. in the Young Botanist Award Section.

8. 91st Indian Science Congress, Jan 3-7, 2004 Punjab University, Chandigarh, **Presented paper** on the topic “*Practical applicability of some plant products as Botanical Pesticides Based on in vivo efficacy and Safety limits*” in the young Scientist Award Section.

9. National seminar on “Environment Degradation and biodiversity: Problems & prospects”. held on November 29th-30th, 2010, Organised by the Department of Botany, D.A-V. College, Kanpur, Sponsored by U.G.C., New Delhi)

10. 3rd National seminar on “Recent Trends in Biological Scenario” held on 3rd December 2010, Organized by Department of Botany, Dayanand Girls’ (P.G.) College, Kanpur.

11. UGC Sponsored National Seminar on Changing Environment : Present Scenario and its Conservation held on Dec. 1-2, 2011, Organised by DBS College, Kanpur

12. National Seminar on Impact of Modern Agriculture on environment. 15th Feb. 2014, Organised by RS Government college, Sivrajpur, Kanpur. Sponsored by Department of Higher Education, Govt of Uttar Pradesh.

13. National Seminar on Science and Technology for Human Development, organised by Indian Science Congress Association, Kanpur Chapter, Dept. of Zoology, DG. College and DAV College, Kanpur. 8th -10th December, 2014.

14. National Seminar on Ancient Indian Science and Technology, Organised at IIT Kanpur on 14th October, 2015.

15. National Seminar on Environmental Protection For Green & Clean India. Organised by Faculty of Science, Dayanand Danku Praga Gyan Uday (P.G.) Mahavidyalaya, Murlipur, Ghatampur, Kanpur Nagar on 19th October, 2015.

16.National conference on Indian Botanic Gardens 18-20 November,2015.Organised at CSIR-National Botanical Research Institute,Lucknow.

17.National Seminar on Biodiversity Conservation and Sustainable Development sponsored by UGC, and organized by Department of Botany,Brahmanand College,CSJM University,Kanpur held on January 20,2016.

18.National Seminar on Science & Technology for Indigenous Development in India, 103 years celebration Programme on 28th -29th January,2016. Organized by Indian Science Congress Association,Kanpur Chapter & Dept of Zoology,D.G.College,Kanpur

Workshop

1.National workshop on Advancement of Nano Materials and its Applications Sponsored by UGC Feb.09-11,2012.Organised by Dept of Physics,D.A-V College Kanpur.

2.13th National Workshop on Future Challenges in Bioinformatics Sponsored by Department Of Biotechnology,Ministry of Science & Technology,Govt. of India.Organised by National Bioinformatics infrastructure facility centre of DBT Dayanand Girls (P.G.)College,Kanpur. 8th to 14th October,2015.

MEMBERSHIP

:

(i).The Indian Botanical Society

(ii). Life membership of International Society for Conservation of Natural Resources

(iii).Indian Phytopathological Society

(iv).The Indian Science Congress Association

