




Faculty Details proforma for DU Web-site

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cc: director@ducc.du.ac.in)**

Title	Dr.	First Name	MOHAMMAD WAHID	Last Name	ANSARI	Photograph
Designation		Assistant Professor				
Address		Department of Botany, Zakir Husain Delhi College (University of Delhi), Jawaharlal Nehru University, New Delhi 110002				
Phone No		Office 011-23232218, 23233420				
Residence						
Mobile		+91-8826437397				
Email		mwahidansari@zh.du.ac.in				
Web-Page						
Educational Qualifications						
Degree		Institution			Year	
Ph. D.		G.B. Pant University of Agriculture and Technology, Pantnagar			2004	
M.Sc.		Aligarh Muslim University, Aligarh			1996	
B.Sc.		Rohilkahnd University, Bareilly			1993	
Career Profile						
<ul style="list-style-type: none"> • Assistant Professor: Department of Botany, Zakir Husain Delhi College, University of Delhi (20 July 2015- till date) • Research Scientist: Plant Molecular Biology Group, International Centre for Genetic Engineering and Biotechnology, New Delhi (25 June 2013- 19 July 2015) • Assistant Professor: School of Agriculture, Mada Walabu University, Ethiopia (25 December 2009- 27 July 2011) • Research Associate: Plant Molecular Biology Group, International Centre for Genetic Engineering and Biotechnology, New Delhi (2 July 2007- 3 August 2009) • Teaching Personnel against Assistant Professor: G.B. Pant University of Agriculture & Technology, Pantnagar (2006) 						
Administrative Assignments						
<ul style="list-style-type: none"> • President, Botanical Society NARGIS, 2017 • Member of Science-Setu programme of NII and DBT • Member, Academic Supervisory Committee, 2016 • Member, Admission Counseling Committee , Zakir Husain Delhi College, 2016 • Member, College Garden and Greening Committee, 2016 • Member, Nature and Environment Society Committee, 2016 • Life member of Agricultural Technology Development Society (ATDS) • Life member of Indian Society for Plant Physiology, India • Reviewer of research papers for some international research journals • Reviewer of research project from SERB, Govt of India • Reviewer of book, IGI Global E-Editorial Discovery system 						
Areas of Interest / Specialization						
<u>Research Interest</u>						
My research focuses on the etiology of inflorescence malformation in mango plants. I believe that a higher endogenous level						

of ethylene in malformed floral tissues may cause the deformed morphology of reproductive organs that influence pollination, fertilization and thereby fruit set. This overproduction of ethylene in response to various abiotic and biotic stresses could be explained as 'stress ethylene'. At present, I am using this perspective to understand how expression ACC synthesis and beta-CAS gene under stress modulate ethylene homeostasis and cross talk to develop mango malformation symptoms? Further, how polyamines and plant hormones interactions involving a wide range of developmental and physiological processes leading to normal cell physiology of plant under changing environment?

A second area of interest focuses on how beneficial microorganisms such as Azospirillum, Azotobacter, Piriformospora indica, Arbuscular mycorrhizal fungi, Fusarium mangiferae and Trichoderma harzianum improve crop productivity by conserving rhizosphere physico-chemical and biological property? I am interested to find out how stress inducible promoter genes SOS2 can reduce yield penalty under salt stress? Our goal is to improve stress tolerance in different crops by transgenic and/or non transgenic approach for sustainable agriculture.

Specialization

Plant Physiology and Biotechnology

Subjects Taught

- Nitrogen metabolism in plants
- Plant growth and regulations
- Primary metabolism in plants
- Plant growth and development
- Introduction to Plant Biotechnology
- Post-harvest physiology
- Principles of Genetics
- Cell and Molecular Biology
- Plant Physiology and Metabolism
- Plant Biotechnology
- Plant Metabolism and Biochemistry
- Analytical Techniques in Plant Science

Time table of the subjects taught during the current semester

S.No.	Subject	Days	Time	Classroom
1.	Plant Physiology and Metabolism	2 days/ week	11:40-12:40	202
2.	Cell and Molecular Biology	2 days/ week	12:40-2:40	101

Research Guidance

- Supervision of Doctoral Thesis as Co-guide : 03 (pursuing)

Publications Profile

Research papers

- V. Rani, MW Ansari, G. Bains (2017) Changes in superoxide dismutase activity in normal and malformed tissues of mango under stressful condition. Bulletin of Environment, Pharmacology and Life Sciences. ACCEPTED.
- N. Passricha, S. Saifi, M.W. Ansari, N. Tuteja (2017) Prediction and validation of cis-regulatory elements in 5' upstream regulatory regions of lectin receptor-like kinase gene family in rice. Protoplasma 254: 669-684.
- Verma A, Singh H, Anwar MS, Kumar S, Ansari MW, Agrawal S (2016) Production of Thermostable Organic Solvent Tolerant Keratinolytic Protease from Thermoactinomyces sp. RM4: IAA Production and Plant Growth Promotion.

Frontiers In Microbiology. 7:1189. (ISSN/ ISBN: 1664-302X).

- Pandey V#, Ansari MW#, Tula S, Yadav S, Sahoo RK, Shukla N, Bains G, Badal S, Chandra S, Gaur AK, Kumar A, Shukla A, Kumar J, Tuteja N (2016) Dose-dependent response of *Trichoderma harzianum* in improving drought tolerance in rice genotypes. *Planta*. 243:1251-1264
- S.S. Gill, R. Gill, D.K. Trivedi, N.A. Anjum, K.K. Sharma, M.W. Ansari, A.K. Johri, R. Prasad, E. Pereira, A. Varma, N. Tuteja (2016) *Piriformospora indica*: potential and significance in plant stress tolerance. *Frontiers In Microbiology* 7:332. doi: 10.3389/fmicb.2016.00332.
- Pandey V, Ansari MW, Tula S, Sahoo RK, Bains G, Kumar J, Tuteja N, Shukla A (2016) *Ocimum sanctum* leaf extract induces drought stress tolerance in rice. *Plant Signaling & Behavior*. 11(5): e1150400. DOI:10.1080/15592324.2016.1150400.
- G Kandpal, MW Ansari, V Pandey, G Bains, SC Shankhdhar, AK Gaur, MK Nautiyal, A Kumar, A Shukla (2016) Silicon solubilizer improves morphological and phenological attributes and confers biotic stress tolerance in rice genotypes. *Communicative Integrative Biology*. Accepted.
- C Kaur, G Kumar, S Kaur, MW Ansari, A Pareek, SK Sopory, SL Singla-Pareek. (2015) Molecular cloning and characterization of Salt Overly Sensitive gene promoter from *Brassica juncea* (BjSOS2). *Molecular Biology Reports*. 42:1139–1148. (ISBN/ISSN No: 1573-4978).
- M.W. Ansari, G. Bains, A. Shukla, R.C. Pant, N. Tuteja (2013) Low temperature stress ethylene and not *Fusarium* might be responsible for mango malformation. *Plant Physiology and Biochemistry* 69: 34-38.
- A. Singh, M.W. Ansari, C.P. Singh, A. Shukla, R.C. Pant, N. Tuteja, G. Bains (2014) First evidence of putrescine involvement in mitigating floral malformation in mango: a scanning electron microscope study. *Protoplasma* 251(5):1255-1261 DOI: 10.1007/s00709-014-0611-6.
- R.K. Sahoo, M.W. Ansari, N. Tuteja (2014) Salt tolerant SUV3 overexpressing transgenic rice plants conserve physicochemical properties and microbial communities of rhizosphere. *Chemosphere* 119C: 1040-1047.
- R.K. Sahoo, M.W. Ansari, N. Tuteja (2014) OsSUV3 transgenic rice maintained higher endogenous level of plant hormones to eradicate the adverse effects of salinity on crop productivity. *Rice*. 7:1-3.
- R.K. Sahoo, M.W. Ansari, M. Pradhan, T.K. Dangar, S. Mohanty, N. Tuteja (2014) Phenotypic and molecular characterization of efficient native *Azospirillum* strains from rice fields for crop improvement. *Protoplasma*. PMID: 24414168.
- R.K. Sahoo, M. W. Ansari, T.K. Dangar, S. Mohanty, N. Tuteja (2014). Phenotypic and molecular characterisation of efficient nitrogen-fixing *Azotobacter* strains from rice fields for crop improvement. *Protoplasma* 251:511-523.
- M.W. Ansari, A. Shukla, R.C. Pant, N. Tuteja (2013) First evidence of ethylene production by *Fusarium mangiferae* associated with mango malformation. *Plant Signaling & Behavior* 8 (1): e22673.
- M.W. Ansari, S. Tula, A. Shukla, R.C. Pant, N. Tuteja (2013) In vitro response of plant growth regulators and antimetabolites on conidia germination of *Fusarium mangiferae* and incidence of mango malformation. *Communicative & Integrative Biology* 6 (6): e25659
- M. W. Ansari, T.K. Nainwal, G. Bains, A. Shukla, U.S. Singh. R.C. Pant (2008) Effect of ethrel on germination of spore of *Fusarium* sp isolated from *Mangifera indica* L. *Pantnagar Journal of Research (IJSBAR)* 6 (2): 275-278.
- M. W. Ansari, T.K. Nailwal, A. Gomathi, A.K. Singh, G. Bains, A. Shukla, H.S. Chaube, U.S. Singh, R.C. Pant (2005) Mangiferin (1,3,6,7-tetrahydroxyxanthone-C2- β -D-glucoside), a phenolic metabolite of mango (*Mangifera indica* L.), affects germination of spore of *Fusarium* sp. *Journal of Plant Biology*. 32 (3): 155-159.
- A. Singh, M.W. Ansari, C.P. Singh, A. Shukla, R.C. Pant, G. Bains (2015) Role of ethrel in causation of floral malformation in mango cv. Amrapali: a scanning electron microscopy study. *Plant Signaling & Behavior*

10:e993264.

- V.K. Singh, A.K. Misra, S. Rajan, M.W. Ansari** (2007) Protein profile, mangiferin and polyphenol oxidase level in susceptible and tolerant genotypes of mango against malformation. *Indian Journal of Horticulture*. 64 (1): 22-24.
- V. Rani, M.W. Ansari, A. Shukla, N. Tuteja, G. Bains (2013) Fused lobed anther and hooked stigma affect pollination, fertilization and fruit set in mango: a scanning electron microscopy study. *Plant Signaling & Behavior* 8 (3):e23167.
- D.K. Trivedi, M.W. Ansari, T. Dutta, P. Singh, N. Tuteja (2013) Molecular characterization of cyclophilin A-like protein from *Piriformospora indica* for its potential role to abiotic stress tolerance in *E. coli* *BMC Research Notes* 6: 555.
- D.K. Trivedi, M.W. Ansari, N. Tuteja (2014) Response of PiCypA tobacco T2 transgenic matured plant to potential tolerance to salinity stress. *Plant Signaling & Behavior* 8(12): e27538.
- D. Verma, M.W. Ansari, G.K. Agrawal, R. Rakwal, A. Shukla, N. Tuteja (2013) In vitro selection and field responses of somaclonal variant plants of rice cv. PR113 for drought tolerance. *Plant Signaling and Behavior* 8 (4):e23519.
- D.K. Trivedi, M.W. Ansari, N. Tuteja (2013) Multiple abiotic stress responsive cyclophilin from rice mediates a wide range of cellular responses. *Communicative & Integrative Biology* 6 (5): e25260.
- K. Dhyani, M.W. Ansari, Y.R. Rao, R.S. Verma, A. Shukla, N. Tuteja (2013) Comparative physiological response of wheat genotypes under terminal heat stress. *Plant Signaling & Behavior* 8(6):e24564.
- S. Tula, M. W. Ansari, A.P. Babu, G. Pushpalatha, K. Sreenu, N. Sarla, N. Tuteja, V. Rai (2014) Physiological assessment and allele mining in rice cultivars for salinity and drought stress tolerance. *Vegetos: International Journal of Plant Research* 26 (1): 1-6.
- J Akhtar, M.W. Ansari, R.R. Diwedi (2006) Natural incidence of fungal microflora on the surface of post harvest sorghum grain in tarai region of Uttaranchal. *Advances in Plant Sciences*. 19 (1): 175-180.
- A. K. Singh, V.K. Gupta, T. Khan, M.W. Ansari, R.C. Pant (2004) Optimization of micropropagation protocol for sugarcane (*Saccharum officinarum* L.) cultivars. *Plant Cell Biotechnology and Molecular Biology*. 5 (1&2): 21-26.
- B. Joshi, M.W. Ansari, G. Bains, R.C. Pant, A. Shukla, N. Tuteja, J. Kumar (2014) *Fusarium mangiferae* associated with mango malformation in tarai region of Uttarakhand state of India. *Plant Signaling and Behavior*. 9:e28715.
- R.K. Sahoo, M.W. Ansari, N. Tuteja (2014) A novel *Azotobacter vinelandii* (SRIAz3) functions in salinity stress tolerance in rice. *Plant Signaling & Behavior* 9: e29377.
- M.S. Anwar, M.T. Siddique, A. Verma, Y.R. Rao, T. Nailwal, M.W. Ansari*, V. Pande (2014). Multitrait plant growth promoting (PGP) rhizobacteria isolates from *Brassica juncea* rhizosphere: keratine degradation and growth promotion. *Communicative & Integrative Biology* 7 (1): e27683.
- A. Verma, H. Singh, M.S. Anwar, M.W. Ansari, S. Agrawal (2014) Production of Alkaline Protease from a Haloalkaliphilic Soil Thermoactinomyceete and its application in feather fibril disintegration. *African Journal of Biotechnology* 8: XXXX-XXXX.
- H. Singh, A. Verma*, M.W. Ansari, A. Shukla (2014) Physiological response of rice (*Oryza sativa* L.) genotypes to elevated nitrogen applied under field conditions. *Plant Signaling & Behavior* 8(6):e24564.
- R. Gupta*, H. Sutradhar, S.K. Chakrabarty, M.W. Ansari*, Y. Singh (2014) Functional receptivity of stigma of Indian mustard, rice and wheat crops decides seed set. *Communicative & Integrative Biology* 8 (5): e1042630.
- M.S. Anwar, A. Kapri, V. Chaudhry, A. Mishra, M.W. Ansari, Y. Souche, C.S. Nautiyal, M.G.H. Zaidi, R. Goel (2016) Response of indigenously developed bacterial consortia in progressive degradation of polyvinyl chloride. *Protoplasma* 253(4):1023-1032. DOI: 10.1007/s00709-015-0855-9..

- A. Verma, M.W. Ansari*, R. Agrawal, S. Agrawal (2014) Alkaline protease from *Thermoactinomyces* sp. RS1 mitigates industrial pollution. *Protoplasma* 251(3):711-8.

Review articles

- Gill, SS, Gill, R, Trivedi, DK, Anjum, NA, Sharma, KK. Ansari, MW, Johri, AK. Prasad, R, Pereira, E, Varma, A, Tuteja, N (2016) *Piriformospora indica*: potential and significance in plant stress tolerance. *Frontiers In Microbiology*. 7, 332, Link: <http://journal.frontiersin.org/article/10.3389/fmicb.2016.00332/abstract>
- M. W. Ansari, R.K. Sahoo, D.K. Trivedi, N. Tuteja (2013) A critical review on fungi mediated plant responses with special emphasis to *Piriformospora indica* on improved production and protection of crops. *Plant Physiology and Biochemistry* 70: 403-410.
- M.W. Ansari, N. Tuteja (2014) Postharvest quality risks by stress/ethylene: management to mitigate. *Protoplasma*. DOI 10.1007/s00709-014-0678-0.
- M.W. Ansari, V. Rani, A. Shukla, G. Bains, R.C. Pant, N. Tuteja (2015) Mango (*Mangifera indica* L.) malformation: a malady of stress ethylene origin. *Physiology and Molecular Biology of Plants* 21:1-8.
- M.W. Ansari, S.S. Gill, N.Tuteja (2014) *Piriformospora indica* a powerful tool for crop improvement. *Proceedings of the Indian National Science Academy* 80:317-324.
- M. W. Ansari, N. Tuteja (2013) Stress-induced ethylene in postharvest losses of perishable products. *Stewart Postharvest Review* 9:1-5.
- D. Bhardwaj#, M.W. Ansari#, R.K Sahoo, N. Tuteja (2014) Biofertilizers functions as key player in crop improvement via conserving physicochemical and biological properties of field soil. *Microbial Cell Factories*. 13:66.
- A.K. Singh, M. W. Ansari, A. Pareek, S.L. Singla Pareek (2008) Raising salinity tolerant rice: Recent progress and future prospective. *Physiology and Molecular Biology of Plants*. 14 (1): 137-154.

Popular Articles

- S.K. Guru, M.W. Ansari, A. Shukla (2012) G.M. faslon duara uttam khetee ke aayaam. *Pantnagar Kisan Diary*. 32: 203-205.
- S. Anwar, M.W. Ansari, A. Shukla (2012) Plant Growth Promoting Bacteria: Worldwide Importance and Acceptance for Agricultural Benefits. *Indian Farmers'Digest* May 2012: 560.
- M.W. Ansari, B. Thakur, G. Bains (2012) Micronutrient enrichment: Breeding and Engineering Perspectives. *Indian Farmers'Digest* May 2012: 359.
- B. Thakur, M.W. Ansari, G. Bains (2012) Alleopathy: a safe alternative for weed control. *Indian Farmers'Digest* May 2012: 558.
- M.W. Ansari, V. Kumar, A.K. Singh, H.S. Chawla (2007) Intellectual Property Rights in Agriculture. *Indian Farmers'Digest* August 2012: 9.

Chapters Contributed to Book

- A. Verma, M.W. Ansari et al. (2017). "Rhizosphere metabolite profiling: An opportunity to understand plant–microbe interactions for crop improvement". In: "Crop improvement through microbial biotechnology. Elsevier publication, 25 B Street, Suite 1800, San Diego, California, chapter 17.
- K. Bisht, V. Sirohi, A. Sajeev, Y. Rama-Rao, M. Nath, A. Verma, M.W. Ansari (2017). "Potential Uses of weeds in medicinal and pharmaceutical industry. In: scope of phytochemically unexplored medicinal plants". Ed: S. Kumar, M. Bhargava, R.K. Wattal, T. Jehan. Enriched publication, New Delhi, pp 187-193.
- Ansari MW (2017) Spread of malformation from India to western counterparts: a major threat to mango industries. In: Indian and western aspects of identity. Ed: G. Singh. Shri Kala Prakshan. Pp 129-133.
- A. Bhardwaj, M. Devi, W. Hasan, M. Ansar, R. Gupta, M. Nath, M.S. Anwar, G. Bains, M.W. Ansari (2017) "Production of secondary metabolites from medicinal plants by biotech-based technology". In: scope of phytochemically unexplored medicinal plants. Ed: S. Kumar, M. Bhargava, R.K. Wattal, T. Jehan. Enriched publication, New Delhi, pp 181-185.

- M.S. Anwar, A. Pandey, M.K. Singh, N. Firdous, A. Verma, M.W. Ansari, T. K. Nailwal1 (2017) Ethno-botanical potential of *Prunella vulgaris* and human health. In: scope of phytochemically unexplored medicinal plants. Ed: S. Kumar, M. Bhargava, R.K. Wattal, T. Jehan. Enriched publication, New Delhi, pp 61-72.
- M.W. Ansari, R. Srivastava, V. Tevari, A.K. Sharma (2005) Perception of elicitors of arbuscular mycorrhiza and nitrogen fixation: signal transduction. In: Recent Mycological Research. Ed: S.C. Sati. I.K. International, pp., 318-328. (ISBN No: 8188237809)

Full Research papers published in the proceeding of conferences/symposia

- V Rani, M.W. Ansari, A. Singh, A. Shukla, R.C. Pant, G. Bains (2013) Histological features of healthy and malformed mango (*Mangifera indica* L.) floral bud in relation to malformation: a botanical micro-technique report. In: National Conference of Plant Physiology on 'Current Trends in Plant Biology Research', Junagadh Gujarat, 23-16 December, 2013. Proceedings. Indian Society for Plant Physiology, New Delhi-110012 pp. 419-420.

Abstract published in the proceeding of conferences

- Ansari MW, Siddiqui ZH, Abbas ZK, Verma A, Kumar A, Wattal RK, Bains G, Pant RC (2017) Cumulative effect of *Fusarium mangiferae* infection and ethylene content in mango flower bud in relation to malformation under low temperature stress condition. In: International Conference on 'Advances in Agricultural and Biodiversity Conservation for Sustainable Development (ABCD-2017)', C. C. S. University, Meerut, Agricultural Technology Development Society, India, p121.
- Bisht K, Sirohi V, Sajeev A, Rama-Rao Y, Nath M, Verma A, Ansari MW (2017) Potential uses of weeds in medicinal and pharmaceutical industry. In: National conference on "Pharmacognosy: scope of phytochemically unexplored medicinal plants" organized by Department of Botany, Zakir Husain delhi College, PP
- Devi M, Bhardwaj A, Rama-Rao Y, Anwar MS, Bains G, Ansari MW (2017) Production of secondary metabolites from medicinal plants by biotech-based technology. In: National conference on "Pharmacognosy: scope of phytochemically unexplored medicinal plants" organized by Department of Botany, Zakir Husain delhi College, PP
- Anwar MS, Pandey A, Singh MK, Firdous N, Verma A, Ansari MW, Nailwal1 TK (2017) Ethno-botanical potential of *Prunella vulgaris* and human health. In: National conference on "Pharmacognosy: scope of phytochemically unexplored medicinal plants" organized by Department of Botany, Zakir Husain delhi College, PP
- Ansari MW, Shukla A (2017) Risk reduction of reactive oxygen species mediated cellular impairment by naturally occurring antioxidants from medicinal plants. In: National conference on "Pharmacognosy: scope of phytochemically unexplored medicinal plants" organized by Department of Botany, Zakir Husain delhi College, PP

Publications in the Last one year

- V. Rani, MW Ansari, G. Bains (2017) Changes in superoxide dismutase activity in normal and malformed tissues of mango under stressful condition. *Bulletin of Environment, Pharmacology and Life Sciences*. ACCEPTED.
- N. Passricha, S. Saifi, M.W. Ansari, N. Tuteja (2017) Prediction and validation of cis-regulatory elements in 5' upstream regulatory regions of lectin receptor-like kinase gene family in rice. *Protoplasma* 254: 669-684.
- Verma A, Singh H, Anwar MS, Kumar S, Ansari MW, Agrawal S (2016) Production of Thermostable Organic Solvent Tolerant Keratinolytic Protease from *Thermoactinomyces* sp. RM4: IAA Production and Plant Growth Promotion. *Frontiers In Microbiology*. 7:1189. (ISSN/ ISBN: 1664-302X).
- Pandey V#, Ansari MW#, Tula S, Yadav S, Sahoo RK, Shukla N, Bains G, Badal S, Chandra S, Gaur AK, Kumar A, Shukla A, Kumar J, Tuteja N (2016) Dose-dependent response of *Trichoderma harzianum* in improving drought tolerance in rice genotypes. *Planta*. 243:1251-1264
- S.S. Gill, R. Gill, D.K. Trivedi, N.A. Anjum, K.K. Sharma, M.W. Ansari, A.K. Johri, R. Prasad, E. Pereira, A. Varma, N. Tuteja (2016) *Piriformospora indica*: potential and significance in plant stress tolerance. *Frontiers In Microbiology* 7:332. doi: 10.3389/fmicb.2016.00332.
- Pandey V, Ansari MW, Tula S, Sahoo RK, Bains G, Kumar J, Tuteja N, Shukla A (2016) *Ocimum sanctum* leaf extract induces drought stress tolerance in rice. *Plant Signaling & Behavior*. 11(5): e1150400. DOI:10.1080/15592324.2016.1150400.

- G Kandpal, MW Ansari, V Pandey, G Bains, SC Shankhdhar, AK Gaur, MK Nautiyal, A Kumar, A Shukla (2016) Silicon solubilizer improves morphological and phenological attributes and confers biotic stress tolerance in rice genotypes. *Communicative Integrative Biology*. Accepted.
- C Kaur, G Kumar, S Kaur, MW Ansari, A Pareek, SK Sopory, SL Singla-Pareek. (2015) Molecular cloning and characterization of Salt Overly Sensitive gene promoter from Brassica juncea (BjSOS2). *Molecular Biology Reports*. 42:1139–1148.

Conference Organization/ Presentations (in the last three years)

Convener/co-convener/ member

- As Convener organized national conference on "Challenges and strategies to improve crop productivity in changing environment : An integrated approach", Department of Botany, Zakir Husain Delhi College in January 12, 2018
- As Co-convener organized 10 days workshop on "Basic techniques in plant tissue culture", Department of Botany, Zakir Husain Delhi College from July 4, 2016 to July 13, 2016.
- Member, National advisory committee, 5th national conference on "Recent advances in chemical and environmental sciences: Emphasis on outcome of chemicals on environment, agriculture and human health" from November 10, 2017 to November 11, 2017
- Member, organizing committee, two days workshop on "Biofertilizers", Department of Botany, Zakir Husain Delhi College from July 14, 2016 to July 16, 2016.
- Member, organizing committee, national conference on "Pharmacognosy: scope of phytochemically unexplored medicinal plants", Department of Botany, Zakir Husain Delhi College on 12 January, 2017.
- Member, organizing committee, national conference on "Biotechnology in crop improvement: prospects & challenges", organized by Department of Botany, Zakir Husain Delhi College, University of Delhi, 1 April 2016.

Oral presentation

- "Risk reduction of reactive oxygen species mediated cellular impairment by naturally occurring antioxidants from medicinal plants" in the national conference at ZHDC, University of Delhi, 12 January 2017
- "Plant tissue culture: a key to produce plants of superior quality" in the workshop at ZHDC, University of Delhi, from July 4, 2016 July 13, 2016.

Poster presentation

- "Potential uses of weeds in medicinal and pharmaceutical industry" in the national conference at ZHDC, University of Delhi, 12 January 2017
- "Production of secondary metabolites from medicinal plants by biotech-based technology" in the national conference at ZHDC, University of Delhi, 12 January 2017
- "Ethno-botanical potential of *Prunella vulgaris* and human health" in the national conference at ZHDC, University of Delhi, 12 January 2017
- "Trichoderma harzianum on drought specific expression of genes in different genotypes of rice" in the 3rd International Plant Physiology Congress, December 11-14, 2015, Convention Centre, JNU, New Delhi, India
- "Elucidating the role of *Trichoderma harzianum* on drought specific expression

<p>of genes in different genotypes of rice" in International Symposium on Plant Signaling & Behavior, March 7-10, Department of Botany, University of Delhi 110007, India</p> <ul style="list-style-type: none"> • "Ethylene production by Fusarium sp isolated from mango" in 2nd International Congress of Plant Physiology, Jan 8-12, 2003 IARI, New Delhi, India.
<p>Research Projects (Major Grants/Research Collaboration)</p>
<p>Project Handled Title: Characterization of ethylene induced through Fusarium sp. (mangiferae) in mango malformation</p> <p>PI/ Co-PI: Principal Investigator (PI)</p> <p>Duration: 3 Years</p> <p>Funding agency: Department of Science and Technology, Government of India</p> <p>Total cost: 25,66,000/-</p> <p>Status: Completed</p>
<p>Awards and Distinctions</p>
<ul style="list-style-type: none"> • "Best Teacher Award" by Agricultural Technology Development Society (ATDS), Uttara Pradesh in 2017 • Best Research Paper Award by Govt. of Uttarakhand in 2016 • Best Research Paper Award by Govt. of Uttarakhand in 2015
<p>Association With Professional Bodies</p>
<p>Members of the Societies/ programme</p> <ul style="list-style-type: none"> • Life member of Agricultural Technology Development Society (ATDS) • Life member of Indian Society for Plant Physiology, India • Member of Science-Setu programme of NII and DBT <p>Reviewer of the Journal/Book</p> <ul style="list-style-type: none"> • Plant Signaling & Behavior • Plant Growth Regulation • Protoplasma • IGI global book <p>Reviewer of Research Projects of funding agencies</p> <ul style="list-style-type: none"> • Research project reviewed for SERB, Science and Engineering Research Board on August 2017 • Research project reviewed for SERB, Science and Engineering Research Board on October 2017 • Research project reviewed for SERB, Science and Engineering Research Board on November 2017
<p>Other Activities</p>
<p><u>Five most significant contributions to the field of 'science'</u></p> <ul style="list-style-type: none"> • Reported that Trichoderma harzianum confers draught tolerance in rice genotypes. • Published the first report that "Low temperature induced stress ethylene and not Fusarium might be responsible for causing the mango malformation. Provided the first evidence that putrescine spray on mango inflorescence reduces the malformation" • Reported novel species of beneficial microorganisms such as Azotobacter, Azospirillum, Priformospora, Trichoderma

reduce adverse effects of environmental stress and improve crop productivity”

- Reported for the first time from India that *Fusarium mangiferae*, associated with mango malformation, has a capacity to produce ethylene itself .
- Developed stress tolerant Suv3 transgenic rice plants which do not have any adverse effect on rhizosphere health
- Characterized SOS2 promoter genes from *Brassica* spp.



Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.