# Multanimal Modi College

## Modinagar-201204 (U.P.)

**(Affiliated to Ch. Charan Singh University, Meerut)**

**(For Teaching Staff)**

| **Title** | Dr. | **First Name** | Vaishali | **Last Name** | Yadav | **Photograph** |
|---|---|---|---|---|---|---|
| **Designation** | | Assistant Professor | | | |  |
| **Department** | | Department of Botany | | | | |
| **Address (Campus/Department)** | | 151-B, Sanjeevani Estate, Near Sikri Railway Crossing, Modinagar, Ghaziabad, Pin Code-201204 | | | | |
| **(Residence)** | | ` | | | | |
| **Phone No (Campus)** | | - | | | | |
| **(Residence) optional** | | | | | | |
| **Mobile** | | 9473554006 | | | | |
| **Fax** | | - | | | | |
| **Email** | | Vaishali.ph16@gmail.com | | | | |
| **Web-Page** | | - | | | | |

**EDUCATIONAL QUALIFICATIONS**

| Subject | Institution | Year | Details |
|---|---|---|---|
| **Ph.D.** | University of Allahabad | 2021 | Title: "An ionomics approach for the detoxification of nanoparticles induced phytotoxicity in plants" |
| **M.Phil.** | - | - | - |
| **M.Sc.** | University of Allahabad | 2013-2015 | Subject ; Botany |
| **B.Sc.** | University of Allahabad | 2010-2013 | Subject ; Botany, Zoology, Chemistry |

## CAREER PROFILE

| Organization / Institution | Designation | Duration | Role(s) |
|---|---|---|---|
| Multanimal Modi College, Modinagar (Affiliated to C.C.S. University, Meerut) | Assistant Professor | | Teaching faculty in the Dept. of Botany |

**Research Interests / Specialization:**

Plant Physiology (Stress Physiology), Plant ecology, Nanotechnology.

**Honors & Awards:**

Awarded CSIR-NET-JRF in 2018

Best Poster Paper Presentation (International Conference On Environmental And Ecology - 2021)

Best Oral Paper Presentation (National Seminar On Sustainability Of Agriculture In Changing Climate Scenario-2018)

**Publications (Last FIVE (05) Year Publications**

| Year of Publication | Title | Journal/Book(s) | Co-Author(s) |
|---|---|---|---|
| 2016 | Exogenous mineral regulation under heavy metal stress: advances and prospects | Biochemistry and Pharmacology | **Yadav V**, Arif N, Singh S, Srivastava PK, Sharma S, Tripathi DK, Dubey NK, Chauhan DK |
| 2016 | Influence of high and low levels of plant-beneficial heavy metal ions on plant growth and development | Frontiers in environmental science | Arif N, **Yadav V**, Singh S, Singh S, Ahmad P, Mishra RK, Sharma S, Tripathi DK, Dubey NK, Chauhan DK. |
| 2016 | Assessment of antioxidant potential of plants in response to heavy metals | In Plant responses to xenobiotics | Arif N, **Yadav V**, Singh S, Kushwaha BK, Singh S, Tripathi DK, Vishwakarma K, Sharma S, Dubey NK, Chauhan DK |

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|---|---|---|---|
| 2016 | Current trends of engineered nanoparticles (ENPs) in sustainable agriculture: an overview | Journal of Environmental & Analytical Toxicology | Arif N, **Yadav V**, Singh S, Singh S, Mishra RK, Sharma S, Dubey NK, Tripathi DK, Chauhan DK. |
| 2016 | Silicon: A Potential Element to Combat Adverse Impact of UV-B in plants | UV-B radiation: from environmental stressor to regulator of plant growth | Tripathi DK, Shweta SS, **Yadav V**, Arif N, Singh S, Dubey NK, Chauhan DK. |
| 2018 | Interaction of copper oxide nanoparticles with plants: uptake, accumulation, and toxicity | Nanomaterials in plants, algae, and microorganisms | Arif N, **Yadav V**, Singh S, Tripathi DK, Dubey NK, Chauhan DK, Giorgetti L |
| 2018 | Acquisition and homeostasis of iron in higher plants and their probable role in abiotic stress tolerance | Frontiers in Environmental Science | Tripathi DK, Singh S, Gaur S, Singh S, **Yadav V**, Liu S, Singh VP, Sharma S, Srivastava P, Prasad SM, Dubey NK. |
| 2019 | Understanding heavy metal stress in a rice crop: toxicity, tolerance mechanisms, and amelioration strategies | Journal of Plant Biology | Arif N, Sharma NC, **Yadav V**, Ramawat N, Dubey NK, Tripathi DK, Chauhan DK, Sahi S |
| 2019 | Regulation of cadmium toxicity in roots of tomato by indole acetic acid with special emphasis on reactive oxygen species production and their scavenging | Plant Physiology and Biochemistry | Khan MY, Prakash V, **Yadav V**, Chauhan DK, Prasad SM, Ramawat N, Singh VP, Tripathi DK, Sharma S |
| 2020 | Structural modifications of plant organs and tissues by metals and metalloids in the environment: a review | Plant Physiology and Biochemistry | **Yadav V**, Arif N, Kováč J, Singh VP, Tripathi DK, Chauhan DK, Vaculík M |
| 2020 | Heavy metal stress and plant life: uptake mechanisms, toxicity, and alleviation | Plant Life Under Changing Environment | Singh S, **Yadav V**, Arif N, Singh VP, Dubey NK, Ramawat N, Prasad R, Sahi S, Tripathi DK, Chauhan DK |
| 2020 | Roles of microRNAs in plant development and stress tolerance | Plant Life Under Changing | **Yadav V**, Arif N, Singh VP, Deshmukh R, Sahi S, Shivaraj |

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|---|---|---|---|
| | | Environment | SM, Tripathi DK, Chauhan DK |
| 2021 | Aluminum toxicity and aluminum stress-induced physiological tolerance responses in higher plants | Critical Reviews in Biotechnology | Chauhan DK, **Yadav V**, Vaculík M, Gassmann W, Pike S, Arif N, Singh VP, Deshmukh R, Sahi S, Tripathi DK |
| 2021 | Histochemical techniques in plant science: More than meets the eye | Plant and Cell Physiology | **Yadav V**, Arif N, Singh VP, Guerriero G, Berni R, Shinde S, Raturi G, Deshmukh R, Sandalio LM, Chauhan DK, Tripathi DK |
| 2021 | Endogenous indole-3-acetic acid and nitric oxide are required for calcium-mediated alleviation of copper oxide nanoparticles toxicity in wheat seedlings | Physiologia Plantarum | **Yadav V**, Gill RA, Arif N, Gill SA, Singh VP, Ramawat N, Zhou W, Tripathi DK, Chauhan DK |
| 2021 | A comparative study of the effective response of di-potassium phosphate (K2HPO4) on physiological, biochemical and anatomical aspects of crops dwelling with zinc oxide nanoparticles toxicity | Toxicology research | **Yadav V**., Arif, N., & Chauhan, D. K |
| 2022 | Diverse Physiological Roles of Flavonoids in Plant Environmental Stress Responses and Tolerance | Plants | Shomali, A., Das, S., Arif, N., Sarraf, M., Zahra, N., **Yadav, V**., ... & Hasanuzzaman, M |

| **Conference Presentations: National / <u>International</u>** | | | | | | |
|---|---|---|---|---|---|---|
| 1. | Application of LIBS to detect multiple stress impact on nutrient regulation in rice seedlings | MMISLIBS | University of Allahabad | 19-21 February, 2018 | International | |
| 2. | Calcium mitigates the toxic Impacts of CuO Nanoparticles Stressed Wheat (*Triticum aestivum L.)* Seedlings by regulating Antioxidant System | Biosangam | MNNIT, ALLAHABAD | 9-11 March 2018, | International | |
| 3. | Calcium Mediated Mitigation of Ag-Nps Induced Toxicity in Tomato (*Solanum Lycopersicum* L.) Seedlings | Sustainability of Agriculture in Changing climate scenario | University of Allahabad | 21-22 April, 2018 | National | |
| 4. | Calcium Mediated Mitigation of Toxicity of CuONps In Wheat (*Triticum aestivum* L.) seedlings | The Indian science congress Association | Lovely professional university, Jalandhar | 3-7 January, 2019 | International | |
| 5. | Phosphorus Mediated Amelioration of ZnONPs Toxicity in Wheat (*Triticum aestivum* L.) Seedlings | ICEE | University of Allahabad | 24-26 February, 2020 | International | |
| **Workshop** | | | | | | |

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|---|---|---|---|---|---|---|
| 1. | Advances in Bioscience and Bioengineering | TEQIP -II | MNNIT, ALLAHABAD | 19-25 October, 2016 | | |
| 2. | Genomics, Personalized Medicine and Ethics | GIAN | MNNIT, ALLAHABAD | 31 july-11 August, 2017 | | |
| 3. | Emerging Biophotonics Solutions for disease diagnosis | GIAN | MNNIT, ALLAHABAD | 1-12 April, 2019 | | |
| 4. | Interface between Nanoparticles and Living Systems: Ethical and Translational Dimensions | GIAN | MNNIT, ALLAHABAD | 15-26 July, 2019 | | |

Vaishali Yadav

**(Signature of Faculty Member)** **(Signature & Stamp of Teacher In-Charge/Principal)**