

## Aqsa Malik



aqsa.malik@uon.edu.pk

### Qualification:

#### Ph.D. Botany (2018-2026) (In-progress)

Lahore College for Women University Lahore

Research Area: Plant Stress Physiology

Thesis Title: Effects of chitosan-zinc oxide nanoparticles on physiochemical attributes of pea (*Pisum sativum* L.) under drought stress

### Research Interest:

Nanotechnology, Plant stress physiology, Mechanism of abiotic stress tolerance in plants, Mitigation strategies against abiotic and biotic stresses, Phytochemistry

### Work Experience

08-12-2022 to Date Associate Lecturer, Department of Botany, University of Narowal (Regular)

24-10-2016 to 07-12-2022 Associate Lecturer, Department of Botany, University of Narowal (Long Term Contract)

### Additional Charge/Duties

Assistant Director Student Affairs	University of Narowal, 30-09-2020 - 15-01-2025
Member Admission Committee	University of Narowal, Fall 2018
Member Convocation Committee	University of Narowal, 02-06-2023
Member Convocation Committee	University of Narowal, 17-02-2021
Member Admission Committee	University of Narowal, Fall 2020
Member Admission Committee	University of Narowal, Spring 2020
Member Admission Committee	University of Narowal, Fall 2017
Organizer Students week	University of Narowal, 31-01-2022
Organizer of Pets and Fancy Bird Show	University of Narowal, 31-01-2022
Organizer of Science Fair and Project Competition	University of Narowal, 31-01-2022
Member Quota admission trial committee	University of Narowal, Fall 2021
Organizer 5 years celebration UON	University of Narowal, 24-02-2023
Member PM laptop distribution committee	University of Narowal, 31-07-2023
Member/Secretary Discipline Committee	University of Narowal, 30-08-2023
Member Extra-curricular Quota Admission Committee	University of Narowal, 07-09-2023
Organizer Seminar on Women Harassment at work place	University of Narowal, 13-10-23
Focal Person Youth Internship Program	University of Narowal, 01-12-23
Member Probe Committee	University of Narowal, 14-02-2022

Organizer Narowal Youth Festival-2025	University of Narowal, 13-01-2025
Organizer Seminar on International Day of Girl Child	University of Narowal, 11-10-2024

<b>Course/ Diploma/ Certificate</b>	<b>Field of Study</b>	<b>Institution</b>	<b>Year</b>
HEC Databases: Use of Scopus for Bibliometric and Systematic Reviews	Research	University of the Punjab, Lahore	2025
Applications of AI in Academic Research: Challenges and Opportunities	Research	University of the Punjab, Lahore	2025
AI and its Ethics in Research	Research	NEXTGEN: Research, Training & Consultancy	2025
Mastering AI Ethics in Research	Research	NEXTGEN: Research, Training & Consultancy	2025
Ethical Use of AI for Research	Research	NEXTGEN: Research, Training & Consultancy	2024
Nanotech Essentials	Research	University of the Punjab, Lahore	2024
Nanotechnology Research	Research	NIBGE, Faisalabad	2024
Plant Systematics (Training of trainers)	Research	Weed Science Society	2024
An editor's guide to writing a review article	ELSEVIER Researcher Academy	University of Narowal	2020
How to turn your thesis into an article	ELSEVIER Researcher Academy	University of Narowal	2020
Structuring your article correctly	ELSEVIER Researcher Academy	University of Narowal	2020
How to prepare your manuscript	ELSEVIER Researcher Academy	University of Narowal	2020

Using proper manuscript language	ELSEVIER Researcher Academy	University of Narowal	2020
Guide to reference managers: How to effectively manage your references	ELSEVIER Researcher Academy	University of Narowal	2020
10 tips for writing a truly terrible journal article	ELSEVIER Researcher Academy	University of Narowal	2020
ProQuest Ebook Central Advanced Training	Research	Higher Education Commission	2020
Non-Muslim Citizens's Rights in Pakistan for Social Inclusion & National Integration	Minority Rights	University of Narowal	2020
Moving Forward with Education with Dr. Ahmar Mahboob	Interactive Session	University of Narowal	2020
Digital Management of Literature Review Using Latest Research Based Softwares with Dr Zahoor Sarwar	Faculty Development Program	University of Narowal	2020
Moral Foundations of Education with Prof. Dr. Abdul Saboor	Faculty Development Program	University of Narowal	2020
Nation Building & Positivism with Mr. Sajid Khan	Faculty Development Program	University of Narowal	2020
Attended Shan-e-Rehmatul-lilalameen Event	Co-curricular Activity	University of Gujrat	2020
Quality Enhancement Cell Training	QEC	University of Gujrat, Sub Campus Narowal	2017
Poster/Model Competition	Co-curricular Activity	University of Gujrat, Sub Campus Narowal	2017

### **Publications:**

- Malik, A.,** Iqbal, S., Jabeen, K., Alotaibi, M. O., Umar, A., Gurbanova, L., Ali, M. H., Kwaśniewski, D., Alzahrani, K. K. & Gancarz, M. 2026. Foliar application of chitosan-zinc oxide nanoparticles improved

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the yield of pea by modulating photosynthetic pigments, water status, and osmotic concentration under water stress. *Int. Agrophys.*, 40(3), 321–337. <https://doi.org/10.31545/intagr/218363>

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2. **Malik, A.**, Rehman, H. A., Aslam, I., Tabassum, Z., Jameel, A., Naseem, U., Iqbal, M., Fatima, K., Faisal F., Riaz, M., Qadir, S., Rafaqat S. & Khalid., S. 2026. Exploring plant phenolics, functional role, extractor and future perspectives. *Journal of Applied Botany and Green Economy* (Accepted)

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  3. **Malik A.**, A. Bibi, Tooba, J. Nasir, A. Akbar, M. Awais, K. Shahzadi, S. Fatima, A. Aslam, E. Fatima, I. Umbreen, N. Haneef, M. Saeed, F. Sajid 2026. Plant-Derived Terpenes: Biosynthesis, Classification and Applications. *Journal of Applied Botany and Green Economy*. 1 (1): 102-138

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  4. **Malik, A.**, Iqbal, S., & Jabeen, K. (2025). Impact of chitosan zinc oxide nanoparticles on pea plant growth and yield under drought stress: A comparison of application modes. *Pakistan Journal of Botany* (Accepted)

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  5. Shah, A.A., Ahmed, S., **Malik, A.**, Naheed, K., Hussain, S., Yasin, N.A., Javad, S., Siddiqui, M.H., Ali, H.M. and Ali, A., 2022. Potassium silicate and zinc oxide nanoparticles modulate antioxidant system, membranous H<sup>+</sup>-ATPase and nitric oxide content in faba bean (*Vicia faba*) seedlings exposed to arsenic toxicity. *Functional Plant Biology*, 50(2), pp.146-159.

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  6. Ramzan, M., Ayub, F., Shah, A.A., Naz, G., Shah, A.N., **Malik, A.**, Sardar, R., Telesiński, A., Kalaji, H.M., Dessoky, E.S. and Elgawad, H.A., 2022. Synergistic effect of zinc oxide nanoparticles and Moringa oleifera leaf extract alleviates cadmium toxicity in *Linum usitatissimum*: antioxidants and physiochemical studies. *Frontiers in plant science*, 13, p.900347.
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#### Peer Reviewer

Journal of Applied Botany and Green Economy

#### References

**Prof. Dr. Zubaida Wajahat**

Professor

Department of Botany

Lahore College for Women University, Lahore

**Prof. Dr. Sumaira Iqbal**

Professor

Department of Botany

Lahore College for Women University, Lahore