



Dr. Muhammad Tajammal Khan

Nationality: Pakistan ☎ (+92) 3356811686 ☎ (+92) 3125759911

Date of birth: 05/09/1988 **Gender:** Male

✉ **Email address:** tajammal.khan@ue.edu.pk; tajammalkhan5@gmail.com

☎ **WhatsApp Messenger:** +923356811686

📍 **Permanent Address:** House No. 1, Street Yasinwali, Samejabad No. 1, near Siddiqia Mosque, Mohallaha Shareefpura, Siddiq e Akbar Road, Multan, Punjab-Pakistan

📍 **Present Address:** House No. B-8, SDM/AC Colony Vehari near General Bus Stand, Vehari, Punjab-Pakistan

ABOUT ME

I am very eager to contribute towards highly applicable and innovative solutions in field of plant sciences. My aim is to work in the field of plant sciences where my creative Initiative, ideas and a genuine enthusiasm would allow me to progress

EDUCATION

Doctor of Philosophy (Ph. D)

CGPA/Percentage: 3.57/80%

Institute of Botany University of the Punjab Lahore-Pakistan

Address: University of the Punjab Lahore, 54590 Lahore-Punjab, Pakistan

<http://www.botanypu.edu.pk/>

Field(s) of study: Botany (Plant Stress Physiology)

Thesis: Amelioration of Drought Tolerance in *Coriandrum sativum* L. by the Foliar Application of Folic Acid and Zinc Oxide Nanoparticles

Master of Philosophy (MPhil; 18 year of education)

CGPA/Percentage: 3.67/77%

Department of Botany Pir Mehr Ali Shah Arid Agriculture University Rawalpindi- Pakistan

Address: Department of Botany, PMAS-Arid Agriculture University Rawalpindi, 46300

Shamsabad, Muree Road Rawalpindi – Pakistan

<http://www.uaar.edu.pk/>

Field(s) of study: Botany (Plant Biotechnology and Growth Regulators)

Thesis: Micropropagation of Myrtle (*Myrtus communis* L.)

B.S. Botany (16 year of education)

CGPA/Percentage: 3.39/77%

Institute of Pure and Applied Biology, Bahauddin Zakariya University, Multan Punjab- Pakistan

Address: Department of Botany, IP & AB, Bahauddin Zakariya University Bosan Road, Multan, Punjab-Pakistan

<https://www.bzu.edu.pk/>

Field(s) of study: Botany (Enzymology)

Thesis: Cellulase and Xylanase Producing Mycoflora of Southern Punjab

Intermediate (Pre-Medical; 12 years of education)

CGPA/Percentage: 66%

Government Post Graduate College, Vehari

Board: Board of Intermediate and Secondary Education, Multan

Address: Govt. Post Graduate College, Multan Road Vehari (Punjab) Pakistan

Secondary School Certificate (Science; 10 years of education)

CGPA/Percentage: 70%

Bilal High School for Boys, Vehari

Board: Board of Intermediate and Secondary Education, Multan

Address: Bilal High School (Boys), Masani Bagh Road Vehari (Punjab) Pakistan

PROJECTS

Ph.D Research Project

[14/11/2019 – 24/11/2022]

Topic: Amelioration of Drought Tolerance in *Coriandrum sativum* L. by the Foliar Application of Folic Acid and Zinc Oxide Nanoparticles

MPhil Research Project

[20/10/2012 – 02/09/2013]

Topic: Micropropagation of Myrtle (*Myrtus communis* L.)

BS Research Project

[20/04/2011 – 14/09/2011]

Topic: Cellulase and Xylanase Producing Mycoflora of Southern Punjab

Professional Qualification and Training/Workshops

Training/Workshops Title	Institute/Department/Organization	Year
◦ Google AI Essentials	Google Career Certificates & Coursera	2026
◦ NCECA-HEC Generative AI Training	UETIANS Lahore Endowment Foundation, USA	2025
◦ Publishing Open Access with Wiley-HEC	Higher Education Commission Pakistan	2025
◦ Refresher-How to Effectively use using ScienceDirect "Read Quality Publish Quality"	Higher Education Commission Pakistan	2024
◦ Author Workshop -Essential of writing a research article for high impact journals	Higher Education Commission Pakistan	2024
◦ Two Days Nanotechnology Training Workshop on Nanotechnology Research	National Institute for Biotechnology and Genetic Engineering (NIBGE), Faisalabad	2024
◦ Unlocking Cellular Secrets: A Training Course on Metabolic Analysis and Molecular Docking	Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab	2024
◦ Two Day Training of Presiding officers GE-2018	Election Commission of Pakistan & UNDP	2018
◦ Capacity Building of Faculty and Staff of HEIs	Higher Education Commission Pakistan	2017
◦ Training on Testing and Evaluation	HEC & University of Education Lahore	2017
◦ B-ed	Government College University Faisalabad	2014
◦ Induction Training Workshop	Directorate of Staff Development Punjab Lahore	2012
◦ One Day Training of Presiding officer	Election Commission of Pakistan	
◦ National Teacher Database Test (Qualify)	National Testing Service	2011
◦ TEVTA Special Training Program	Technical Education & Vocational Training Authority	2007
◦ Intensive English Course	Barron's Learning Centre	2007

Course Attended

Course Title	Institute/Department	Year
◦ Maximize Productivity With AI Tools	Google Career Certificates & Coursera	2026
◦ Discover the Art of Prompting	Google Career Certificates & Coursera	2026
◦ Use AI Responsibly	Google Career Certificates & Coursera	2026
◦ Stay Ahead of the AI Curve	Google Career Certificates & Coursera	2026
◦ Introduction To AI	Google Career Certificates & Coursera	2025
◦ Green Investment: Renewable Energy	Asian Development Bank Institute	2024
◦ Air Pollution- a Global Threat to our Health	University of Copenhagen (Coursera)	2019

HONOURS AND AWARDS

- Awarded with Laptop from HEC (Higher education commission) of Pakistan by getting high grade during M-Phil.
- Awarded scholarship in recognition of academic achievements in graduation through PEEF by Chief Minister Punjab
- Awarded with certificate of best performance in cricket in annual sport (district level) by district sport office.
- Awarded with Certificate as Top Performer Award Generative AI Application Developer.

COMPUTATIONAL SKILLS

Computational Skills

- Origin-Pro
- Statistix 8.1
- Minitab
- XL STAT
- ImageJ
- Co-Stat
- MS Office

EXPERIMENTAL SKILLS

Can Run and Handle

- Growth Chamber
- Pressure Chamber
- Infrared Gas Analyzer
- Hot Plate and Magnetic Stirrer
- Autoclave
- Colorimeter
- Spectrophotometer
- X-ray diffraction instrument Field
- GC-MS Spectrophotometer
- Electrophoresis Gel
- Laminar Flow Cabinet

SKILLS

Personal Skills

- Proven willingness to participate in constructive learning during sessions and to promote learning success, as evidenced by my references.
- Computer Software and Application Knowledge
- Interpersonal communication
- Confident in applying a range of techniques and technologies to develop my skills.
- Strategic planner and creative problem solve.
- understand the value of time and good skills of time management
- Proficient in writing reports.

Communication skills

- Good communication skills gained through my experience.
- Confident, articulate, and professional speaking abilities.
- Empathic listener and persuasive speaker.
- Excellent presentation and negotiation skills.
- Social communication skills.

Organizational/Managerial Experience

- **Program Team Member** for preparation of Self-Assessment Report (SAR) of MS-Botany (2025-26).
- **Program Team Member** for preparation of Self-Assessment Report (SAR) of BS-Botany (2024-25).

- **Organizer** of 3rd International Conference on Recent Approaches in Plant Sciences (RAPS-2025).
- **Member Abstract Review Committee** of 3rd International Conference on Recent Approaches in Plant Sciences (RAPS-2025).
- **Secretary** of Departmental Selection Committee for visiting faculty in subject of Botany (29 August, 2025)
- **External examiner** for the evaluation of research thesis of BS Botany program (Spring 2025; Vehari campus).
- Assigned the charge of **Coordinator Security** (Sub office Security Dera Ghazi Khan Campus; 2 Oct, 2024 to date)
- Campus **Store In charge** (2023 to 2024).
- **External examiner** for the evaluation of research thesis of BS Botany program (Spring 2024; Vehari campus).
- **Member of Campus Committee** of UI Green Metric World University Rankings (GYM) 2023.
- **Organizer** of Botanical Exhibition and Cultural Day in Campus (23 October, 2023).
- **Distributing inspector** of examination of affiliated colleges (Fall 2022 to Fall 2024)
- Working as **Department Coordinator** of Botany (February, 2018 to March, 2021).
- **Member Departmental Board of Studies** (BOS) of Botany (May, 2018 to March, 2021).
- **Program Team Member** for preparation of Self-Assessment Report (SAR) of BS-Botany (2020-21).
- **Laboratory In charge** and In charge gardening (Nov, 2020 to Mar, 2021).
- **Program Team Member** for preparation of Self-Assessment Report (SAR) of BS-Botany (2020-21).
- **Assessment Team Member** (ATM) for Self-Assessment Report of BS-Botany Program (2018-2019).
- **Member of Campus Committee** of Library Checking and Management (2017-2018).
- **Member of Evaluation Committee** of PEEF scholarship (2017).
- Worked as a **Special Day Officer** for smooth functioning of academia within campus (2017).
- Hostel **Deputy Superintendant** (2016-2017).
- Nominated by Principal for campus audit of financial year (2016-17).

CONFERENCES AND SEMINARS

Conference & Seminars/Webinars

- One day International Webinars on "Writing an Effective Policy Brief from Your Research" (25 Sept, 2025; CABI & Script)
- 2nd International Conference on Recent Approaches in Plant Sciences (RAPS 2023; UE) as **Oral Presenter**.
- One day International Webinars on "Post Harvest Management and Storage of Potato Crop" (13 April, 2023; GCUL).
- One day Webinar on "The Significant Role of Women in Horticulture and its Impact for their Empowerment" (Horticulture Society, GC University Lahore, 2023).
- 1st International Conference on Recent Approaches in Plant Sciences (RAPS 2022; UE) as **Oral Presenter**.
- One day Webinar on "Frontiers of Advanced Nanopharmaceutics" (30 June, 2022; NIBGE).
- Fourth International Conference of Bioscience (ICBS 2021) as **Presenter** at Department of Botany, QUA Islamabad (15 June, 2021).
- 1st International Conference on Sustainable Agriculture: Food Security under Changing Climate Scenarios (3rd to 5th April, 2019; Ghazi University).
- International Conference on "Conventional and Modern Approaches in Plant Sciences (CMAP 2017; 28th & 29th Nov, 2017, PU).
- Organizer in the "National Symposium on Modern Trends and Approaches in Microbiology" (21st January, 2009; BZU).
- 2nd International Conference of Life Science (30 & 31 January, 2008; BZU).

Potential Reviewer of Journals

- Scientific reports
- BMC Plant Biology
- Journal of Crop Health
- Chemosphere
- Silicon
- Chemical and Biological Technologies in Agriculture

Research Publications

Total citations: 394

H-index: 10

Total IF: 57.19

Total publication: 21

- **Khan, M. T.**, Ahmed, S., Sardar, R., Shareef, M., Abbasi, A., Mohiuddin, M., ... & Golokhvast, K. S. (2022). Impression of foliar-applied folic acid on coriander (*Coriandrum sativum* L.) to regulate aerial growth, biochemical activity, and essential oil profiling under drought stress. *Frontiers in Plant Science*, 13. **(IF: 6.627)**
- **Khan, M. T.**, Ahmed, S., Shah, A. A., Noor Shah, A., Tanveer, M., El-Sheikh, M. A., & Siddiqui, M. H. (2021). Influence of zinc oxide nanoparticles to regulate the antioxidants enzymes, some osmolytes and agronomic attributes in *Coriandrum sativum* L. grown under water stress. *Agronomy*, 11(10), 2004. **IF: 3.417**
- Khan, M. T., Ahmed, S., & Shah, A. A. (2021). Regulatory role of folic acid in biomass production and physiological activities of *Coriandrum sativum* L. under irrigation regimes. *International Journal of Phytoremediation*, 24(10), 1025-1038. **(IF:4.003)**
- Ansari, M., Ahmed, S., Abbasi, A., **Khan, M. T.**, Subhan, M., Bukhari, N. A., ... & Abdelsalam, N. R. (2023). Plant mediated fabrication of silver nanoparticles, process optimization, and impact on tomato plant. *Scientific Reports*, 13(1), 18048. **(IF:4.6)**
- Gillani, S.F.A., Zhuang, Z., Rasheed, A., Haq, I.U., Abbasi, A., Ahmed, S., Wang, Y., **Khan, M.T.**, Sardar, R. and Peng, Y., 2022. Brassinosteroids induced drought resistance of contrasting drought-responsive genotypes of maize at physiological and transcriptomic levels. *Frontiers in Plant Science*, 13. **(IF:6.627)**
- Ahmed, S., Ali, A., Hussain, T., Umar, A., Dufossé, L., **Khan, M. T.**, ... & Mahmoud, R. M. (2023). *Ganoderma multistipitatum* sp. nov. from Chir pine tree (*Pinus roxburghii* Sarg.) in Pakistan. *Journal of King Saud University-Science*, 102554. **(IF: 3.829)**
- Ahmed, S., **Khan, M. T.**, Abbasi, A., Haq, I. U., Hina, A., Mohiuddin, M., ... & Li, Y. (2022). Characterizing stomatal attributes and photosynthetic induction in relation to biochemical changes in *Coriandrum sativum* L. by foliar-applied zinc oxide nanoparticles under drought conditions. *Frontiers in Plant Science*, 13. **(IF:6.627)**
- Ansari, M., Ahmed, S., Abbasi, A., Hamad, N. A., Ali, H. M., **Khan, M. T.**, ... & Zaman, Q. U. (2023). Green Synthesized Silver Nanoparticles: A Novel Approach for the Enhanced Growth and Yield of Tomato against Early Blight Disease. *Microorganisms*, 11(4), 886. **(IF: 4.926)**
- Hashim, M., Bushra, E., Dasti, A. A., Abbasi, A., Ali, H. M., Maqsood, S., ... & **Khan, M. T.** Exploration of species diversity and vegetation pattern in temperate conifer forests along altitudinal gradients in the Western Himalayas. *Frontiers in Forests and Global Change*, 6, 1195491. **(IF: 3.20)**.
- Tufail, B., Ashraf, K., Abbasi, A., Ali, H. M., Sultan, K., Munir, T., **Khan, M. T.**, & uz Zaman, Q. (2023). Effect of Selenium on Growth, Physio-Biochemical and Yield Traits of Lettuce under Limited Water Regimes. *Sustainability*, 15(8), 6804. **(IF: 3.889)**
- Chaudhry, A., Hassan, A. U., Khan, S. H., Abbasi, A., Hina, A., **Khan, M. T.**, & Abdelsalam, N. R. (2023). The changing landscape of agriculture: role of precision breeding in developing smart crops. *Functional & Integrative Genomics*, 23(2), 167. **(IF: 3.674)**.
- Ansari, M., Ahmed, S., **Khan, M. T.**, Hamad, N. A., Ali, H. M., Abbasi, A., ... & Jasim, I. K. (2023). Evaluation of In Vitro and In Vivo Antifungal Activity of Green Synthesized Silver Nanoparticles against Early Blight in Tomato. *Horticulturae*, 9(3), 369. **(IF:2.923)**
- IKRAM, R. M., HUSSAIN, M. S., **KHAN, M. T.**, GHAFOOR AHAMAD, S. K., KHAN, S. A., & MURTAZA, G. (2014). Gist of medicinal plants of Pakistan having ethnobotanical evidences to crush renal calculi (kidney stones). *Acta Poloniae Pharmaceutica*, 71(1), 3-10. **(IF: 0.33)**
- **KHAN, M. T.**, SIDDIQUE, S., QURESHI, R., HUSSAIN, E., & HUSSAIN, S. Floristic Inventory of Village Chitral, District Narowal, Pakistan. *European Academic Research*. 2(6): 7691-7700. **(IF: 0.00)**.
- MAJEED, I., YASIN, G., KHAN, M. T., IRSHAD, S., SHAH, A. A., BUTT, G., & HUSSAIN, E. A physio-chemical soil study of greater and lesser Cholistan desert of southern Punjab Pakistan. *European Academic Research*. 2(6): 7969-7980. **(IF: 0.00)**.
- Umar, A., Shah, A. A., & **Khan, M. T.** (2020). Phylogenetic analysis of forty *Solanum melongena* L. accessions by SDS-page. *Bangladesh Journal of Botany*, 49(1), 75-84. **(IF: 0.34)**
- Ahmed, S., Umar, I., Jabeen, F., Ansari, M., Bukhari, S., Ahmad, M.N., Sadar, R., Ahmad, M., **Khan, M.T.** and Zadid, S.R. (2023). Sodium Fluoride Induced Changes in the Growth and Yield of *Spinacia Oleracea* L. *Fluoride*, 56(2), pp.123-132. **(IF: 0.725)**
- Ahmed, S., Ahmad, M., Ansari, M., Sardar, R., Ahmad, M.N., Umar, I., Bukhari, S., Zadid, S.R. and **Khan, M.T.** (2023). Growth and yield responses of *Lactuca sativa* L. To different concentration of sodium fluoride. *Fluoride*, 56(2): 133-142. **(IF: 0.725)**
- Ahmed, S., Mudassar, S., Ansari, M., Jabeen, F., Sadar, R., Bukhari, S., Ahmad, M.N., Kamran, A., Amjad, M., **Khan, M.T.** and Haziq, M.A., 2023. Evaluation of Sodium Fluoride Induced Stress on Growth and Yield of *Lycopersicon esculentum* L. *Fluoride*, 56(2): 143-155. **(IF: 0.725)**
- Hussain, E., Baig, M. A., **Khan, M. T.**, Shah, A. A. and Butt, G. 2014. Comparison of Total Flavonoid Content of Two Brown Seaweeds (*Sargassum sp* and *Iyengaria sp*) Collected from Southern Coast of Karachi Pakistan. *American Research Thoughts*. 1(1): 200-206. **(IF: 0.00)**.

- Hussain, E., Shafi, F., Baig, M. A., **Khan, M. T.**, & Butt, G. Y. 2014. Evaluation of Different Nitrogen Sources in Production of Biosurfactant by Mycoflora of Southern Punjab Pakistan. *European Academic Research*. 2(3): 3676-3685. (IF: 0.00).

Book/Book Chapter

- Hina, A., Hassan, A., Khan, M. T., Haroon, A., Abbasi, Asim., Hanif, A., Ali, H. A., & Abdelsalam, N. R. (2025). Marker -Assisted Breeding in Legumes for Drought Tolerance. In *Marker -Assisted Breeding in Legumes for Drought Tolerance* (pp. 151-178): Springer Singapore
- Abbasi, A., Hina, A., Shahid, S., Imtiaz, S., Intisar, A., & Khan, M. T. (2023). Micronutrients Enrichments in Legumes Through Agronomic and Cultural Practices. In *Legumes Biofortification* (pp. 47-71). Cham: Springer International Publishing.
- Hussain, E., Baig, M. A. & Khan, M. T. (2012). Study of Biosurfactants Producing Mycoflora of Southern Punjab: Process Development and Characterization Studies of Mycoflora Producing Biosurfactants Isolated from Fruits and Soil (pp 1-84). LAP LAMBERT Academic Publishing.

Research Supervision (Human Resource Development)

Ph.D Student Research Project (Ongoing: Co-Supervision)

S/N	Student Name	Synopsis Title	Session
1.	Muhammad Afzal (2022-GU-0467)	Amelioration of Arsenic Stress Tolerance in Chickpea (<i>Cicer arietinum</i> L.) by Application of Some Selected Growth Regulators	2022-25

Graduate level (MS Research)

S/N	Student Name	Thesis Title	Session
1.	Muhammad Irfan (msf23007573)	Ethnobotanical Exploration of Medicinal and Wild Plants of Kot Chutta, Dera Ghazi Khan, Punjab, Pakistan	2023-25
2.	Muhammad Shahjahan (msf23007577)	Molecular Docking and In-silico Screening of <i>Arum maculatum</i> L. Seed Lectin Against Mannose and Derivatives	2023-25
3.	Shumaila Parveen (msf23007580)	Evaluation of Heavy Metals Pollution on Roadside Proximity Soil and Vegetation from Karamdad Qureshi to Dera Ghazi Khan City N-70 National Highway Punjab, Pakistan	2023-25
4.	Irum Fatima (msf23007584)	Impact of Greywater Irrigation on Agro-biochemical Parameters of <i>Triticum aestivum</i> L.	2023-25
5.	Ateeq Ur Rehman (msf23007585)	Assessment of Heavy Metals Content of Some Selected Plants Along Indus Highway from Dera Ghazi Khan to Jampur, Punjab, Pakistan	2023-25
6.	Zoha Akhtar(msf23007591)	Production of Bio Enzymes from Orange Peel and Selected Vegetables and its Impact on Growth and Yield Parameters of Spinach (<i>Spinacia oleracea</i> L.)	2023-25
7.	Hafsa Safdar (msf23007592)	Ethno-phytological Investigation and Eco-geographical Distribution of Dera Ghazi Khan, Punjab, Pakistan	2023-25
8.	Muhammad Shafique (mss24000190)	Exploring the Binding Specificity of <i>Abrus precatorius</i> L. Lectin Against Mannose and Derivatives Through In Silico Screening and Molecular Docking Approach	2024-26

Undergraduate level (BS Research)

S/N	Student Name	Thesis Title	Session
1.	Muhammad Awais (bsf1905921)	Ethnobotanical Survey of Medicinal Plants of Dajal City Punjab	2019-23
2.	Aasma Bibi (bsf1905741)	Ethnobotanical Survey of Medicinal and Wild Plants of Taunsa Sharif Punjab	2019-23
3.	Mudassir Zia (bsf1905476)	Inventory of Medicinal and Wild Food Plants of Muhammad Pur Dewan Punjab	2019-23
4.	Masooma Zahra (bsf2002373)	Comprehensive Floristic Inventory of Local Plants of Tehsil Jampur, District Rajanpur-Punjab, Pakistan	2020-24
5.	Ansa Shabir	Ethnobotanical Profile of Selected Medicinal Plants of Muzaffargarh	2020-24

	(bsf2002209)	District Punjab, Pakistan	
6.	Muhammad Zahid Nazeer (bsf2002014)	Impact of Copper Induced Stress on the Early Growth Stage of Okra (<i>Abelmoschus esculentus</i> L.) Seedlings	2020-24
7.	Muqadas Zahrah (bsf2002379)	Ethnobotanical Exploration and Therapeutic Uses of Wild Plants of Some Associated Villages of Dera Ghazi Khan City-Punjab, Pakistan	2020-24
8.	Amna Saleem (bsf2002575)	Ethnobotanical Catalog and Utilization of Medicinal and Wild Edible Plants in Jampur, Punjab, Pakistan	2020-24

DIGITAL SKILLS

My Digital Skills

Microsoft Office / Microsoft Word / Microsoft Powerpoint / Microsoft Excel / Fiver / Video Editing / Internet user / Google Drive / Google Meet / Twitter / Fiver

LANGUAGE SKILLS

Mother tongue(s): Rechnavi/Punjabi

Other language(s):

English

LISTENING C1 READING C2 WRITING C1

SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1

Urdu

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION

HOBBIES AND INTERESTS

Hobbies and interests

- Volunteering work for welfare of society particularly students.
- Exploring new inventions in Plant Sciences
- Reading newspaper column
- Sport (Cricket)
- Reading

REFERENCES

Referenc 1

Name: Dr. Usman Zahid

Phone number: (+92) 3351665117

Email: principaldgk@ue.edu.pk

Principal/Professor,
University of Education Lahore,
Kangan Road Dera Ghazi Khan Campus, Dera Ghazi Khan-32200, Pakistan
Phone: +92-0649260384

Reference 2

Name: Prof. Dr. Shakil Ahmed

Phone number: (+92) 3374670652

Email: shakil.botany@pu.edu.pk

Professor,
Institute of Botany,
University of the Punjab, Lahore-54590, Pakistan
Phone: +92-4299231152, ext. 816

Reference 3

Name: Dr. Naveed Iqbal Raja

Phone number: (+92) 03135257004

Email: drnaveedraja@uaar.edu.pk

Associate Professor,
Department of Botany,
PMAS-Arid Agriculture University Rawalpindi-46300, Pakistan
Phone: +92-51-9290235

