

Dr. YUNISH KHAN

Ph.D. Agricultural Statistics • (+91)95205-70308 • khanyunish263145@gmail.com

EDUCATION

GB Pant University of Agriculture & Technology , Pantnagar, Uttarakhand <i>Ph.D. Agricultural Statistics (76.31 %)</i> Concentrations: Yield Forecasting, Disease Severity Forecasting	2024
GB Pant University of Agriculture & Technology , Pantnagar, Uttarakhand <i>Master of Science, Agricultural Statistics (77.09 %)</i>	2020
VCSGUUHF , Bharsar (Pauri Garhwal), Uttarakhand <i>Bachelor of Science (Hons.), Forestry (76.62 %)</i>	2018

TEACHING EXPERIENCE

Department of Statistics, Computer Application and IPR at College of Hill Agriculture, VCSG Uttarakhand University of Horticulture & Forestry, Bharsar, Uttarakhand
Assistant Professor (Contract) (September 2025 –present)

- Taught various Statistics courses (e.g. Introductory Mathematics, Basic Sampling Techniques, Statistical Methods, Experimental Design, Research Methodology etc.) to postgraduate and phd program students.
- Assessed and evaluated student progress to ensure learning acquisition over specific time periods.

Department of Mathematics, Statistics and Computer Science, G.B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand
Teaching Personnel (Feb 2025 – June 2025)

- Taught various Statistics courses (e.g. Elements of Statistics, Statistical Methods, Experimental Statistics etc.) to undergraduate and postgraduate program students.
- Assessed and evaluated student progress to ensure learning acquisition over specific time periods.

Department of Mathematics, Surajmal Agarwal Girls Degree College, Kichha, Uttarakhand
Assistant Professor (April 2024 – October 2024)

- Taught various Statistics courses (e.g. Sampling Techniques & Analysis of Variance, Advanced Statistics etc.) to undergraduate and postgraduate program students.
- Assessed and evaluated student progress to ensure learning acquisition over specific time periods.

G.B. Pant University of Agriculture and Technology, Pantnagar, Department of Mathematics, Statistics and Computer Science
Teaching Assistant (During Ph.D.)

- Delivered course classes for undergraduate and postgraduate programs under the supervision of Dr. Vinod Kumar, Professor, Department of Mathematics, Statistics and Computer Science.
- Conducted lab sessions and practical classes for undergraduate and postgraduate programs.

G.B. Pant University of Agriculture and Technology, Pantnagar, Department of Mathematics, Statistics and Computer Science
Teaching Assistant (During M.Sc)

- Delivered course classes for undergraduate programs under the supervision of Dr. Haseen Ahmad, Professor, Department of Mathematics, Statistics and Computer Science.
- Conducted lab sessions and practical classes for undergraduate and postgraduate programs.

RESEARCH EXPERIENCE

Ph.D. Thesis:

- **Title:** “STATISTICAL AND MACHINE LEARNING MODELS FOR FORECASTING SOYBEAN YIELD AND DISEASE SEVERITY” under the guidance of Dr. Vinod Kumar, Professor, Department of Mathematics, Statistics and Computer Science.
- **Institution:** G. B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, INDIA.
- **Duration:** January 2021-May 2024.
- **Description:**
 - To study the relationship of crop yield with weather variables.
 - To study the relationship of disease severity with weather variables.
 - To examine the effect of disease severity and weather variables simultaneously on crop yield.
 - To develop and study the models using Principal Component Analysis (PCA) in the combination of SMLR, ANN, LASSO, RR, ELNET and SMLR-ANN.
 - To compare the results of the developed models and find the best performing model on the basis of performance indices.
- **Skills and Techniques:**
 - Yield forecasting
 - Disease Severity forecasting
 - Statistical Modeling
 - Machine Learning
 - Literature Review and Comparative Analysis.

As Research Paper Reviewer:

Peer Reviewed manuscripts of research papers for the following International Journals as a reviewer:

- Archives of Current Research International (2024) indexed in **CrossRef, Publons, Scite Index.**
- International Journal of Environment and Climate Change (2024) indexed in **CrossRef, WorldCAT, Scite Index.**
- Journal of Advances in Biology and Biotechnology (2025) indexed in **CrossRef, Wikidata, Openalex.**
- BP International (2025) indexed in **CrossRef, OpenAIRE, Dimensions, Google Scholar.**
- Journal of Scientific Research and Reports (2025) indexed in **NAAS, Scopus, Dimensions, Scite Index.**
- Journal of Big Data (2026) indexed in **Scopus, Web of Science (SCIE), DOAJ, Google Scholar.**
- Archives of Current Research International (2026) indexed in **CrossRef, Publons, Scite Index.**
- Journal of Discover Applied Sciences (2026) indexed in **Scopus, Web of Science (ESCI), DOAJ, Ei Compendex.**
- Journal of King Saud University Computer and Information Sciences (2026) indexed in **Web of Science (SCIE).**
- Asian Journal of Medical Research and Case Reports (2026) indexed in **Google Scholar, Publons, SHERPA/RoMEO.**
- Asian Journal of Probability and Statistics (2026) indexed in **Google Scholar, Index Copernicus, Crossref.**
- Asian Research Journal of Mathematics (2026) indexed in **Google Scholar, Publons, Crossref, OpenAlex, Copernicus.**
- Journal of Advances in Mathematics and Computer Science (2026) indexed in **Google Scholar, Index Copernicus, CNKI.**
- Scientific Reports (2026) indexed in **Web of Science (SCIE), Scopus, PubMed/MEDLINE.**
- Asian Journal of Education and Social Studies (2026) indexed in **Google Scholar, Index Copernicus, Crossref.**
- Journal of Scientific Research and Reports (2026) indexed in **NAAS, Scopus, Dimensions, Scite Index.**

HONORS AND CERTIFICATIONS

- Successfully completed the course “Advance Diploma in Information Technology” from **ITCE (Bareilly, U.P.)** sponsored by Social Welfare Society of Information Technology with a grade of A⁺.
- Successfully completed one month summer training in “Raw Material Department of Century Pulp and Paper, Ghanshyam Dam, Lalkuan, Distt. Nainital, Uttarakhand from 16th August to 15th September, 2017.
- Successfully participated in one month Forest Training Programme held at Uttarakhand Forestry Training Academy, Haldwani (Nainital) from 3rd October to 3rd November, 2017.
- **Young agri statistician award (2026)** awarded by Agri Meet Foundation, Bharat, in recognition of outstanding contributions to Agriculture & Allied Sciences at AGRI MEET-2026.

PUBLICATIONS

- **Khan, Y., Kumar, V., Setiya, P. and Satpathi, A. (2023).** Comparison of phenological weather indices based statistical, machine learning and hybrid models for soybean yield forecasting in Uttarakhand. *Journal of Agrometeorology*, 25(3): 425-431. Doi: 10.54386/jam.v25i3.2232.
- **Khan, Y., and Kumar, V. (2023).** Comparison of Phenological Weather indices based Statistical and Machine Learning Models for Soybean Yield Forecasting in Pantnagar, Uttarakhand. ‘In: Proceedings of International Conference on Mathematical Models, Statistics and Applications (ICMMSA-2023), 1-21. Doi:10.61463/ijset.icmmsa-2023.101.
- **Khan, Y., Kumar, V., Setiya, P. and Satpathi, A. (2023).** Forecasting soybean yield: a comparative study of neural networks, principal component analysis, and penalized regression models using weather variables. *Theoretical and Applied Climatology*. Doi: 10.1007/s00704-023-04767-9.
- **Khan, Y., Kumar, V., Satpathi, A., Setiya, P., Surbhi, K., Nain, A. K., Vishwakarma, D. K., Yradav, K. K., Gacem, A. and Choi, J. R. (2025).** Comparative Evaluation of Hybrid and Individual Models for Predicting Soybean Yellow Mosaic Virus Incidence. *Scientific Reports*. Doi: 10.1038/s41598-025-99427-5.
- **Khan, Y., and Kumar, V. (2025).** Forecasting models for forewarning Soybean Yellow Mosaic Virus for Tarai Zone of Uttarakhand. *Journal of Reliability and Statistical Studies*, 18(2): 1-12. Doi: 10.13052/jrss0974-8024.1828.
- **Khan, Y., Kumar, V. (2025).** Weather-Based Forecasting of Rhizoctonia Aerial Blight Severity in Soybean: A Comparative Evaluation of Statistical and Machine-Learning Models for the Tarai Region of Uttarakhand. *Journal of Reliability and Statistical Studies*.
- **Khan, Y., Kumar, V., Setiya, P. and Satpathi, A. (2025).** Advanced Machine Learning Approaches for Soybean Yield Prediction in Uttarakhand. *Soybean Science and Sustainability – Advancing Crop Productivity, Nutrition, and Climate Resilience*, 1-16. Doi: <https://dx.doi.org/10.5772/intechopen.1012260>. (Book Chapter)
- **Khan, Y., Kumar, V., Ahmad, T. and Haneef, R. (2026).** Integrated Statistical and Machine Learning Frameworks for Soybean Yield and Disease Prediction. *AI Tools in Agriculture*. (Book Chapter)

WORKSHOP AND CONFERENCES

- Presented research paper entitled “**Forecasting soybean yield: a comparative study of neural networks, principal component analysis, and penalized regression models using weather variables**” in the “**International Conference on Statistical Theory and its Applications (ICSTA-2023)**” organized by Bharathiar University, Coimbatore, Tamil Nadu, India during 01-02 September, 2023.
- Presented research paper entitled “**Comparison of Phenological Weather indices based Statistical and Machine Learning Models for Soybean Yield Forecasting in Pantnagar, Uttarakhand**” in “**International Conference on Mathematical Models, Statistics and Applications (ICMMSA-2023)**” organized by ABCD Index Department of Mathematics held at Bhopal (M. P.), India on October 20-21, 2023.
- Five days Online Training Programme on “**Applied Statistical Concepts and Tools for Research Data Analysis**” organized by College of Veterinary Science and Animal Husbandry, Rewa (M.P.), India from 25th to 29th September, 2023.

- Three days international workshop on “**Principles of Scientific Writing-with an Emphasis on Scientific Manuscript to be Submitted to Journals**” held at G. B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, INDIA from 4th to 6th February, 2023.
- One day workshop on “**Scientific paper writing**” held at G. B. Pant University of Agriculture and Technology, Pantnagar, Uttarakhand, INDIA on 28 December, 2022.
- Two days workshop on “**Mathematical and Statistical Methods in Engineering, Science and Management**” organized by Department of Mathematics, Harcourt Butler Technical University, Kanpur from 7th to 8th July, 2025.
- Participated in international conference on Agricultural Global Research & Innovation Meet for Excellence Engagement & Transformation (AGRI MEET-2026)

OTHER DETAILS

- ResearchGate Id: <https://www.researchgate.net/profile/Yunish-Khan>
- Communication Address: House No. II/135, College of Forestry, Ranichauri, Tehri Garhwal (Uttarakhand)-249199
- Permanent Address: House No. I/319, Phool Bagh Centre, Pantnagar (Uttarakhand) - 263145

REFERENCES

- **Dr. Vinod Kumar**
Professor
Department of Mathematics Statistics and Computer Science
G.B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand-263145
Contact No. 9412188203
Email address: vinod_kumarbcb@yahoo.com
- **Dr. S.B. Singh**
Professor
Department of Mathematics Statistics and Computer Science
G.B. Pant University of Agriculture & Technology, Pantnagar, Uttarakhand - 263145
Contact No. 9412120731
Email address: drsaurajbsingh@yahoo.com

DECLARATIONS

I hereby declare that all the statements made herein are true to the best of my knowledge and belief.

Yunish

(Yunish Khan)