





45 DAYS NATIONAL TRAINING PROGRAM

BIOMETRICAL TOOLS IN CROP IMPROVEMENT

THEORY, APPLICATION, & INTERPRETATION

REGISTER NOW



45 Days Programme

07 Sept. to 22 October 2025



Time

06:00 PM TO 08:00 PM



Venue

Online

Who can attend

- Scientist,
- Faculty Members
- Industrial Person
- Research Scholars
- Students

Program High Lights

- Live demonstration and hands-on experience
- 6 Months Guidance & e-manual Book
- e-copy & Hard Copy Certificates

GUESTS



Dr. G. Bhupal Raj

Dean (Ag) School of Agriculture, SR University Warangal, Telangana-506371



Dr. Hirakant V Kalpande

Head, Department of Agricultural Botany, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani Maharashtra-431402







360rf.in



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Assistant Professor
Department of Genetics and Plant Breeding

School of Agriculture, SR University Warangal, Telangana-506371

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Assistant Professor , Nagaland University, Department of Rural Development and Planning Medziphema Campus, Nagaland University

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Associate Professor, Dept. of Genetics and Plant Breeding College of Agriculture, Latur, Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani

Dr. S. P. Pole

Junior Breeder (Sunflower), Oilseed Research Station, Latur Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani

Dr. M. V. Dhuppe

Oilseed Specialist / Sunflower Breeder Oilseed Research Station, Latur Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani

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Dr. R. K. Kalaria

Assistant Professor (Senior Scale) Bioinformatics Section, Aspee Shakilam Biotechnology Institute Navsari Agricultural University



Agriculture generates vast amounts of data from various sources such as weather, soil, crop yield, and market trends. By applying statistical tools to agricultural data, participants can identify patterns, trends, and correlations that can lead to increased productivity and efficiency in farming practices. This, in turn, can help address food security challenges and maximize agricultural output. Statistical analysis can aid in optimizing resource allocation, determining the best planting and harvesting times, and improving overall farm management strategies. Following objectives will be achieved after the completion of the course:

- Equip participants with hands-on training and proficiency in using popular statistical analysis package R with its libraries for agricultural and biological data.
- Provide practical case studies and examples to demonstrate the application of statistical analysis in solving real-world agricultural challenges.
- Train participants in interpreting statistical outputs accurately and effectively communicating findings to diverse stakeholders.
- Cultivate a data-driven mindset among participants, emphasizing the importance of evidence-based decision-making in agriculture.

HOW TO REGISTER

Step 1: Go to https://360rf.in/events

Step 2: Click on given "Registration Link" to register for the desired course available.

Step 3: Pay Registration fee through Bank *OR* UPI:

Name : 360 Research Foundation

Account No: 6262101002995

Bank : Canara Bank, Narkatiaganj

IFSC Code : CNRB0006262

Step 4: Share Payment Screenshot to Email-Contacte360rf.in or 9122820407

Registration Fee: 1499 INR



ABOUT THE HOST INSTITUTION

The 360 Research Foundation, established under the Indian Trust Registration Act, is a national-level organization dedicated to promoting grassroots research and technological innovations. Our initiatives span multiple sectors, including agriculture, health, biotechnology, skill development, rural development, environment & natural resources, and data management & analysis. With a strong emphasis on collaborative and multidisciplinary research, we aim to enhance research networking capacity and infrastructure to drive innovation and sustainable development.

Our mission is to empower researchers, innovators, and creative minds by providing them with the necessary resources, support, and opportunities. We focus on empowerment and livelihood improvement, particularly for marginalized communities, individuals in poverty, and children in need. By fostering research, innovation, and knowledge-sharing, we aim to uplift lives and contribute to societal progress. The 360 Research Foundation operates across **26 specialized departments**, each addressing key areas of research and development. Additionally, we have established **10 institutions** at different locations, working towards the foundation's mission of promoting grassroots research, education, and technological innovation.

With a proven track record of achievements, the 360 Research Foundation has emerged as one of India's leading organizations in research and development. Our contributions have been recognized through multiple accolades and affiliations from the Government of India, underscoring our dedication to excellence, sustainability, and innovation.

The Department of Agriculture (DA) at 360 Research Foundation plays a crucial role in formulating strategic plans and policies for the advancement of agriculture, animal husbandry, dairy, fisheries, agricultural land policies, and food processing. We work closely with national, state, and regional agricultural departments to ensure the effective implementation of policies and initiatives that contribute to the welfare of farmers and the growth of the agricultural sector.

Currently, the department operates three centers in Mathura (Bihar), Medpura (Rajasthan), and Nagpur (Maharashtra). Additionally, a new center is proposed to be established in Chopal (Himachal Pradesh), further expanding our reach and impact in agricultural research and development.

360 Research Foundation is registered under the State Government of Bihar on 29th June 2017 with Registration Number: 10/2017. We are also recognized by NITI Aayog, Government of India, under UID: BR/2018/0200583.

MOUs with Government & Private Institutions

The 360 Research Foundation has established strategic collaborations through **Memorandums of Understanding (MOUs) with leading government and private institutions** to advance agriculture, research, education, and skill development.

We have **signed an MOU with ICAR-ATARI Zone-IV, Patna**, to promote best agricultural practices, awareness programs, training initiatives, and research activities. This partnership aims to enhance agricultural productivity and farmer welfare through scientific advancements and knowledge dissemination.

Additionally, the foundation has forged MOUs with prestigious academic institutions, including: Lovely Professional University (Punjab), University of Petroleum and Energy Studies (Dehradun), LNCT University (Bhopal), Chaudhary Charan Signh PG College (Basti), Sathi Private ITI (Bihar), Spoken Tutorial (IIT Bombay), Anwesha (IIT Patna),

We collaborate with private sector entities also, including:

Bhanurja Pvt. Ltd., CanAgri (Canada), EKI Energy Services Ltd., Innovations Towards Future (USA), Manuj Security Pvt. Ltd., Power Zest, Sant Kabir Math (Mathura), Biowave Learnings and Smart Power for Rural India Foundation.

These collaborations facilitate joint research, curriculum development, training programs, and innovation-driven initiatives. By working closely with universities, research organizations, and industry leaders, the 360 Research Foundation continues to drive impactful change in multiple sectors, particularly in agriculture, technology, and sustainable development.

ABOUT SR UNIVERSITY





SR University (SRU) is an autonomous private University spread over in 150 acres lush green campus. It has 9000+ students, 900+ faculty and 140+ Programs on board across various schools viz., School of Engineering, School of Agriculture, Schools of Computer Science and Artificial Intelligence, School of Businesses, School of Allied Health Sciences and basic Sciences, etc.

SRU is the one of the top private universities in India and only university in Telangana State, which has been consistently getting top 100 NIRF ranking in Engineering category (98 in 2024) and below 150 ranking in university category among all Universities of India for the past 4 years. The goal of SRU is to create an innovative teaching-learning ecosystem to make all its graduates' experts in their fields to deal with growing challenges of the nation in all spheres. SRU is committed to transform the educational system by its unique initiatives of engaging creative faculty, creating technology-enabled infrastructure and adapting collaborative entrepreneurial ecosystem.

About the School of Agriculture

The School of Agriculture (SoA) at SR University in Warangal, Telangana stands out as a distinguished institution dedicated to advancing agricultural education and research. It offers comprehensive programs including a Bachelor of Science in agriculture (B. Sc. Agriculture), M.Sc. Agriculture and Ph.D. programs, designed to provide students with a robust foundation in various aspects of agricultural sciences and advance farming technologies. With over 750 students on campus, the school is equipped with state of the-art laboratories, experimental farms and advanced machinery to ensure hand-on learning.

Adaption of ICAR Syllabus, presence of highly qualified faculty members who are actively engaged in cutting edge research, mentor students, fostering an environment of innovation and academic excellence. The school also emphasizes community outreach, regularly conducting workshops and training sessions for local farmers to promote sustainable farming practices.

The School of Agriculture (SoA) at SR University continues to strive for excellence, aiming to be a leader in agricultural education and industry collaborations enhances the learning experience, preparing students for diverse careers in agribusiness, government agencies, and research institutions, with a dedicated placement cell, the school ensures that graduates secure the promising opportunities in the agricultural sector. Through its comprehensive educational programs and community engagement, SR University's School of Agriculture is dedicated to producing skilled professionals capable of contributing significantly to the agricultural industries.

TRAINING SCHEDULE

Topic Covered

The program will be in online mode. The course will comprise live demonstrations and practice sessions.

Day	Topic	Day	Topic
1	Introduction to Biometrical Tools in Agriculture	16	Principal Component Analysis (PCA)
2	Basics of Experimental Designs	17	PCA using R for Agronomic Traits
3	Advanced Experimental Designs	18	Cluster Analysis and Dendrogram
4	Data Analysis of CRD and RBD using R	19	Hierarchical Clustering using R
5	Design and Analysis of Split and Strip Plot Designs	20	Basics of QTL Mapping
6	Introduction to Biometrical Genetics	21	QTL Mapping with ICIMapping
7	Partitioning Variance Components	22	Genome-Wide Association Studies (GWAS)
8	Estimation of Genetic Parameters Using R	23	Hands-on GWAS Using GAPIT or rrBLUP in R
9	Combining Ability Concepts (GCA, SCA)	24	Modern Technologies in Seed Production
10	Analysis of Combining Ability using R	25	Seed Quality Assurance Tools and SOPs
11	Concept of Heterosis in Plant Breeding	26	Statistical Designs in Seed Testing Labs
12	Estimation of Heterosis	27	Future Directions: Genomics in Seed Sector
13	Genotype × Environment Interaction (G×E)	28	Integrated Omics in Commercial Seed Production
14	Stability Analysis: AMMI & GGE Biplot	29	Wrap-up of Training
15	Hands-on with GGE Biplot and AMMI in R	30	Final Assessment & Feedback + Manual Launching

CERTIFICATION

Participation certificates will be awarded subject to participation criteria, i.e., attendance percentage and post-training evaluation.

Mr. Bibhakar Kumar

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STU SCHOOL OF AGRICULTURE

Academic and Research Collaborators



भाकृअनुप - भारतीय तिलहन अनुसंधान संस्थान ICAR-Indian Institute Of Oilseeds Research











భారతీయ వరి పరిశోధనా సంస్థ भारतीय चावल अनुसंधान संस्थान ICAR-Indian Institute of Rice Research





भाकृअनुप - राष्ट्रीय कृषि अनुसंधान प्रबंध अकादमी ICAR-National Academy of Agricultural Research Management



















