

Sunnyrudh Singh

Curriculum Vitae

Professional Address

Punjab Agricultural University (PAU)
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Education

December 2026 Ph.D. Agricultural Extension Education, Punjab
Agricultural University, Ludhiana, Punjab, India
2023 Masters, Extension Education, Punjab Agricultural University, Ludhiana,
Punjab, India
2021 B.Sc. Agriculture, Govt. Brijindra College, Faridkot, Punjab, India

Research Profile

Agricultural Extension researcher specializing in innovative farmer education methods, ICT-enabled extension systems, and participatory learning approaches. My work focuses on integrating indigenous agricultural knowledge with modern communication strategies to improve farmer awareness, technology adoption, and sustainable agricultural practices. Current research explores non-traditional teaching methods and digital tools for improving agricultural extension and farmer learning.

International Academic Experience

Visiting Research Scholar
California State University, Fresno
Fresno, California, USA during Spring 2026 (Feb 16 – August 15)
Conducting research on assessing the effectiveness of non-traditional teaching methods in enhancing farmers' awareness of agricultural and environmental issues. The visit includes conducting farmer surveys, needs assessment, questionnaire development, and collaboration with extension specialists and K-12 agricultural teachers in California.

Other Projects:

- Participated in field-based research on orchard systems, including ground-penetrating radar (GPR) scanning of almond rootstock trials to assess root architecture and soil interactions
- Collaborated with interdisciplinary research teams on data collection and field experimentation in commercial orchard settings
- Gained hands-on experience with advanced field research tools and techniques in agricultural systems
- Contributing to an ongoing project on Effect of Carbonated Irrigation on Soil Health, involving soil sampling and laboratory analysis to examine soil–water interactions and sustainability outcomes
- Worked as a Student Assistant on the Pollination in Pistachios project in collaboration with Valent USA and AVG, contributing to research support activities related to pistachio production, pollination, and orchard management.
- Worked as a Student Assistant on the Systemic Pesticide Residue '25 project, supporting research activities related to pesticide residue assessment, crop protection, and sustainable agricultural production.

- Data analysis, and preparation of scatter plots and other visual outputs for a graduate student's research.

Professional Experience

Invited Speaker on National Young Professionals Development Program (NYPDP), MANAGE 1st June 2026

Following participation in the NYPDP training (September 8–12, 2025, KVAFSU Bangalore), was subsequently invited by MANAGE to return as a speaker and deliver a session on post-NYPDP journey and impact. The session covered research development, professional networking, emerging competencies in agricultural extension, international academic exposure, and career development pathways. Delivered to a cohort of young agricultural professionals from across India.

National Young Professionals Development Program by MANAGE

New Competencies, Career Opportunities and Research Priorities in Agricultural Extension from September 8–12, 2025 at Veterinary College Hebbal, Karnataka Veterinary, Animal and Fisheries Sciences University (KVAFSU), Bangalore, Karnataka, India

Doctoral Research

Thesis Title

Assessing the Effectiveness of Edutainment Tools in Enhancing Farmers' Environmental Knowledge in Punjab, India and California, USA

Key Contributions

- Conducting comparative research on the effectiveness of **edutainment-based**
- **communication tools** for improving farmers' environmental knowledge in Punjab (India) and California (USA).
- Developing and validating innovative extension tools including **scientific songs, jingles, interactive e-modules, and educational cardboard games** to promote sustainable agricultural practices.
- Evaluating farmer learning through **knowledge gain analysis using pre- and post-intervention assessments**.
- Research conducted under the **Punjab Agricultural University – California State University Fresno collaborative framework**.

Master's Research

Thesis Title

Validation and Effectiveness of Interactive Cardboard Game on Cotton Growers in India and Tanzania

Key Contributions

- Developed and validated an **interactive cardboard game** designed to improve farmer learning regarding cotton cultivation.
- Developed an **Android application for successful cultivation of cotton crop** and received **copyright protection** for the application.

Undergraduate Research

Project Title

Comparison of Nitrogen Application in Wheat by Conventional Method and as per LCC Color Chart

Responsibilities included:

- Planning and execution of field trial design and layout
- Conducting agronomic practices for wheat cultivation

- Data collection, processing and statistical analysis
- Report submission and presentation of results
- Participated as an **extension worker in Kisan Melas**

Honors and Awards

- PAU Merit Scholarship (twice) for securing highest OCPA during master's and PhD
- Ph.D. Rank 1 holder in entrance examination
- International Rotary Award
- Winner of district-level declamation contests
- NSS "A" Grade Certification
- Winner of impromptu essay writing challenges during Science Week

Research Interests

- Qualitative research: semi-structured interviews, thematic analysis
- Mixed methods research and survey design
- Statistical analysis using SPSS and Jamovi
- Qualitative data analysis
- Participatory and community-engaged research approaches
- Field-based data collection and stakeholder engagement

PUBLICATIONS

Book Chapters

1. Singh, S. (2025). **AI in Agriculture: Global Relevance Through Technology Adoption.**
2. Singh, S. (2025). **Emerging Trends in Pest and Disease Management.**

Conference Papers

1. Singh, S. (2025). **Recent Advances in Communication Models.** International Journal of Agriculture Extension and Social Development. Vol 8, Issue 12. 649-655
2. Singh, S. (2024). **Impact of Interactive Cardboard Game on Cotton Growers in Punjab and Madhya Pradesh.** Journal of Agricultural Development and Policy, 2023 Volume 33, No. 2, 213-218

Working Publications

1. Singh, S. (2025). Technology Gap in Adopting Recommended Cultural Practices of Cotton. Agriculture Association of Textile Chemical and Critical Reviews Journal. Vol 13 Issue 3 409-411

Books

1. Singh, S., Sharma, A., & Gill, J. S. (Forthcoming July 2025). **From Roots to Reach: Bridging Indigenous Wisdom with Expanding Extension Pathways.** CannAgri Consulting and Publishing 760 Hwy 3A, Kaleden, British Columbia, Canada V0H 1K0. ISBN: 978-1-0695014-0-0

CONFERENCE PRESENTATIONS AND AWARDS

1. **First Prize – Paper Presentation**
1st International Extension Education Congress (IEEC-2023)
Rajasthan Agricultural Research Institute, Durgapura, Jaipur (SKNAU, Jobner, Rajasthan) organised by Society of Extension Education, Agra, India during December 18–20, 2023
2. **Third Prize – Paper Presentation**
2nd Annual Conference of Indian Society for Agricultural Development and Policy (ISADP) at Punjab Agricultural University during November 29–30, 2023
3. **First Prize – Poster Presentation**
11th National Seminar on Transformative Agriculture and Sustainable Development organised

by Society of Community Mobilisation at Maharana Pratap Agricultural University, Udaipur on March 5–7, 2024

4. **First Prize – Poster Presentation**

12th National Seminar on Futuristic Agriculture organised by Society of Community Mobilisation at Umiam, Meghalaya during May 22–24, 2025

5. **First Prize – Paper Presentation**

National Conference on Health, Gender and Environment: Intersections Towards Meeting the SDGs organised by Institute of Home Economics, University of Delhi on April 4, 2025

FUNDING

International Research Grant

1. University of California System (through California State University, Fresno) 2026

Awarded during my tenure as **Visiting Scholar at California State University, Fresno** to support collaborative research on **non-traditional teaching methods for enhancing farmers' environmental awareness**.

Travel Grant

1. Dr. G. S. Khush Foundation

Awarded to support academic travel and participation in international academic activities related to agricultural research and extension.

EXTENSION AND KNOWLEDGE MOBILIZATION

1. Worked as extension worker in Kisan Mela programs for farmer outreach.
2. Member of Punjab Agricultural University official media team preparing agricultural videos for the university YouTube channel.
3. Conducted interviews with professors and agricultural experts during Kisan Mela and helped produce educational videos for farmers.

TECHNICAL AND PROFESSIONAL SKILLS

1. Statistical software for agricultural data analysis
2. Android application development
3. Diploma in Web Designing
4. Public speaking
5. Content writing

CREATIVE AND LITERARY CONTRIBUTIONS

1. Author of the novel **Shadows of The Undetected** available on Amazon, Kindle, Flipkart and Google Play Books.
2. Co-author of **15+ literary anthologies**.
3. Five-time winner of **English Poetry Challenge by The Unheard Stories Community**.
4. Former **Editor of the Social Science Section of the College Magazine**.

LEADERSHIP AND COMMUNITY ENGAGEMENT

1. National Service Scheme (NSS) Volunteer
2. Anchored **more than 20 academic and cultural events**
3. Participated in **hostel national-level programmes**

4. Participated in **quiz competitions during youth festivals**
5. Member of **Poetry Club**