

Dr Suman Singh

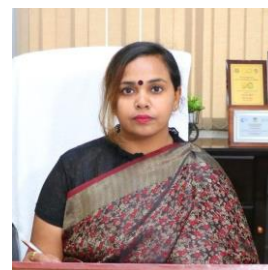
Assistant Professor in Food Engineering

Department of Food Engineering

Institute of Food Science and Technology

VCSG Uttarakhand University of Horticulture and Forestry

Majri Grant, Doiwala, Dehradun, Uttarakhand 248140



Email: simanki.singh27@gmail.com Mobile: +91 74648 62009

Dr. Suman Singh is an Assistant Professor in the Department of Food Engineering, Institute of Food Science and Technology, VCSG Uttarakhand University of Horticulture and Forestry, Majri Grant, Dehradun. She holds a Ph.D. in Process and Food Engineering from G.B. Pant University of Agriculture and Technology, Pantnagar, and completed postdoctoral research at Yonsei University, South Korea, during 2015-2017. She has served at VCSG UUHF since 2017. Her research focuses on sustainable food packaging, edible coatings, oxygen and ethylene scavengers, antimicrobial systems, freshness indicators and temperature-regulating packaging. She develops packaging materials from agricultural residues to support food preservation and waste utilization. Her academic contributions include 56 journal papers, three scholarly books and research projects supported by ANRF/SERB and UCOST. Her honours include the FSSAI Eat Right Research Excellence Award (2022), the Packaging Person of the Year Women to Watch Award (2024) and the SIES SOP Star Faculty Award (2025). She also conducts food-processing and preservation training for farmers and women's self-help groups.

Research Interests and Specialization

Sustainable and biodegradable food packaging; edible films and coatings; active and intelligent packaging; oxygen and ethylene scavengers; antimicrobial packaging; freshness indicators and functional inks; agricultural-waste valorization; postharvest quality and shelf-life extension; phase-change materials and cold-chain packaging; food process engineering and materials characterization.

Recent Publications

Five selected peer-reviewed papers published during 2025-2026.

Sr. No.	Title of Paper	Journal	ISSN	Volume or Article	Year
1	<u>Smart Packaging Solutions</u>	Current Food Science and Technology Reports	<u>2662-8473</u>	4, Article 12	2026
2	Development of anthocyanin-rich Hibiscus rosa-sinensis edible ink incorporating mango powder and stevia for improved sensory and printing properties	Bioresource Technology Reports	<u>2589-014X</u>	35, 102868	2026
3	<u>Effect of edible coating of plantbased gum on apple Malus domestica fruit after harvesting</u>	Journal of Food Measurement and Characterization	<u>2193-4126</u>	20, 9074-9089	2026
4	<u>Modelling and optimization of catechu-based oxygen scavenger systems</u>	Journal of Food Engineering	<u>0260-8774</u>	Article 112860	2025

Sr. No.	Title of Paper	Journal	ISSN	Volume or Article	Year
5	<u>Antimicrobial packaging material based on waste corn husk coated with starch and neem (Azadirachta indica) flower extract for sustainable food packaging applications</u>	Waste and Biomass Valorization	<u>1877-2641</u>	16, 5443-5456	2025

Education

Sr. No.	Qualification	University or Organization	Main Subject	Year
1	Ph.D.	G.B. Pant University of Agriculture and Technology, Pantnagar	Process and Food Engineering	2014
2	M.Tech. University Gold Medal	Sam Higginbottom University of Agriculture, Technology and Sciences, Allahabad	Process and Food Engineering	2011
3	B.Tech.	G.B. Pant University of Agriculture and Technology, Pantnagar	Agricultural Engineering	2009

Qualified the National Eligibility Test (NET) in 2014.

Work History

Academic Experience

Duration	Post	Organization
2017-present	Assistant Professor	Department of Food Engineering, Institute of Food Science and Technology, VCSG Uttarakhand University of Horticulture and Forestry, Dehradun
2015-2017	Postdoctoral Fellow in Packaging Science and Technology	Department of Packaging, Yonsei University, South Korea
2012-2014	Research Assistant	Department of Post-Harvest Process and Food Engineering, G.B. Pant University of Agriculture and Technology, Pantnagar

Administrative Experience

Duration	Post	Organization	Nature
14/11/2018 – 25/11/2019	OIC	IFST, VCSG UUHF	Administration
13/01/2023 – 07/01/2025	OIC	IFST, VCSG UUHF	Administration

Academic and Administrative Responsibilities

Contributes to curriculum development, B.Tech. Food Technology programme planning, laboratory development, academic coordination, funded research management and extension education. Serves as an external examiner and thesis evaluator.

Thesis Supervision

Guides student research in sustainable food packaging, edible coatings and postharvest quality, with emphasis on formulation development, materials characterization and shelf-life studies.

Professional Activities

Activity or Membership	Organization
Life Member	Association of Food Scientists and Technologists, India (AFSTI)
Professional membership	ASTM
Professional membership	Institute of Packaging Professionals
Professional membership	International Society of Food Engineering
Professional membership	Society of Chemical Industry, London

Associate Editor or Editorial Board member: Frontiers in Food and Nutrition Research; Chronicle Journal of Food and Nutrition; Nutrition and Food Toxicology.

Reviewer: Journal of Food Measurement and Characterization; Applied Polymer; Journal of Post-Harvest Process and Food Engineering; Journal of Food Science and Technology; Sustainable Food Technology; RSC Advances.

Teaching: Fundamentals of Food Processing; Food Packaging Technology; Food Safety and Sanitation; Good Laboratory Practices; Electrical and Control Systems in Food Industry.

Extension: Conducts processing and preservation training for farmers, women and self-help groups, including value addition to fruits, vegetables and mushrooms.

Awards and Achievements

Award or Achievement	Organization	Year
Ranked 617th worldwide and 26th in India in Nanocomposite Films for Food Packaging in the ranking by Scholarly Index.	Top 1000 scholar by Scholarly Index.	2026
Women Achiever in Science and Technology Award	India's Most Promising Shiksha Ratna Samman, Dehradun	2026
SIES SOP Star Faculty Award for corn-husk-cellulose innovation	SIES School of Packaging	2025
Packaging Person of the Year Women to Watch Award	PrintWeek	2024
Eat Right Research Excellence Award in Sustainable and Safe Packaging	Food Safety and Standards Authority of India (FSSAI)	2022
Travel Grant for international conference participation in Canada	Uttarakhand State Council for Science and Technology (UCOST)	2018

Award or Achievement	Organization	Year
Best Poster Award at the 51st Annual Conference	Korea Packaging Society, Seoul	2017
A. J. Banks Travel Award for the IFT Annual Meeting, USA	Society of Chemical Industry, London	2016
DST-INSPIRE Fellowship for Ph.D.	Department of Science and Technology, Government of India	2011
University Gold Medal in M.Tech.	SHUATS, Allahabad	2011

Research Projects

Project	Role	Agency and Period
Development of plant-based functional edible coating for enhancing quality and safety of perishables via a zero-plastic-waste model	Principal Investigator	ANRF/SERB 2023-present
Eco innovation utilizing Uttarakhand temples' floral waste: development of sustainable water-based ink for a greener tomorrow	Co-Principal Investigator	UCOST 2025-2027
Utilization of crop waste generated in Uttarakhand for novel sustainable packaging of fresh produce	Principal Investigator	UCOST 2020-2022

Publications

Publication Category	Number
Peer-reviewed journal papers	56
Scholarly books	3

Books: Food Packaging Systems; Novel Packaging Systems for Fruits and Vegetables; Concepts of Food Packaging.

Research Impact

Research metrics reported in 2026.

Metric	Value
Citations	3,800+
H-index	30
i10-index	47

Google Scholar profile: scholar.google.com/citations?user=BxTMPi4AAAAJ