

CURRICULUM VITAE

NISHANT KUMAR (PH.D.)

TOP 2% SCIENTIST (2025)- ELSEVIER & STANFORD UNIVERSITY

**ASSISTANT PROFESSOR -I / SCIENTIFIC OFFICER
AFAF, AMITY UNIVERSITY, NOIDA**

Ph.D. (Department of Agriculture and Environmental Science)

National Institute of Food Technology Entrepreneurship and Management,
Kundli (NIFTEM-K)



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H-Index: 28; i10-index: 46 (Google Scholar)



ACADEMIC PROFILE			
Degree	University	Year	Division
Ph. D. (Department of Agriculture and Environmental Science)	National Institute of Food Technology Entrepreneurship and Management, Sonapat (India), (National Importance Institute)	2021	Awarded
PG Diploma in Food Safety & Quality Management	IGNOU, New Delhi (India)	2021	First Division
PG Diploma in Environment and Sustainable Development	IGNOU, New Delhi (India)	2017	First Division
M. Sc. (Biotechnology)	University of Rajasthan (India)	2011	First Division
B. Sc. (Biotechnology)	University of Rajasthan (India)	2009	First Division
M.Sc. (Food Safety & Quality Management)	IGNOU, New Delhi (India)	Pursuing	

JOB EXPERIENCES

Position	Organization	Period
Assistant Professor I/ Scientific Officer	AFAF, Amity University, Noida	09 June-
Knowledge Management Officer	Food Fortification Research Center, National Institute of Food Technology Entrepreneurship and Management, Sonapat (India)	11.Feb. 2025- 04 June, 2025
Research Associate	Department of Food Science and Technology, National Institute of Food Technology Entrepreneurship and Management, Sonapat (India)	26 Dec. 2022 to 08. Feb. 2025
Research Fellow (Junior)	Department of Food Science and Technology, National Institute of Food Technology Entrepreneurship and Management, Sonapat (India)	12, July 2021 to 26 Dec. 2022
Shift In charge	The Malt Ind. Pvt. Ltd. Kashipur (Uttarakhand)	2014-2015

Quality Analyst/ Chemist	Malsters & Blenders Ind. Pvt. Ltd. Neemarana, (Raj.)	2012-2014
Freelance Scientific Writer	Paperpedia Private Limited	Working from 24 July 2024

RESEARCH EXPERIENCES/PROJECTS

- ❖ Development of natural antioxidant based edible coating using bio-active compounds extracted from pomegranate peel
- ❖ Utilization of pomegranate peel powder to developed value added cookies
- ❖ Standardization of formulation for instant tea premix and determination of its antioxidant activity (M.Tech. FPEM 2018).
- ❖ Use of non-toxic nano-formulations for prolonging shelf life and reduction of post-harvest loss of mandarin orange of North East India”.
- ❖ Oral thin films
- ❖ Utilization of fruit processing waste to extract starch and protein for food packaging application.
- ❖ Extraction of bioactive compound from fruity processing waste
- ❖ Effects of Wet-Milling Extraction Methods on Nutritional, Functional, and Structural Properties of Barnyard Millet Starch
- ❖ Millet based value added functional food products
- ❖ Postharvest management of fruits and vegetables using different types of edible coatings prepared with addition of plant extract and essential oils
- ❖ Bio polymeric composite coating for food packaging application

Scientific support to NIFTEM (B.Tech. and M.Tech.) Students in their research project work mainly related to research design, data analysis and interpretation. The projects are as follow:

- ❖ Studies on dehydration properties of bitter gourd. (B.Tech. FTM 2018).
- ❖ Study of Characteristics of Ginger Powder prepared using different drying methods and value added product from ginger powder (B.Tech. FTM 2018).
- ❖ Effect of different drying techniques on Nutritional and Physical qualities of beetroot powder (B.Tech. FTM 2018).
- ❖ Fast dissolving oral thin films (M.Tech)
- ❖ Characterization of Aloe Vera Gel-Based Edible Coating with Orange Peel Essential Oil and Its Preservation Effects on Button Mushroom (*Agaricus bisporus*) (M.Tech)
- ❖ Formulation and characterization of guar gum and almond gum based composite coating and their application for shelf-life extension of okra (*Hibiscus esculentus*) (M.Tech)
- ❖ Chitosan-Cinnamon Oil Coating Maintains Quality and Extends Shelf Life of Ready-to-Use Pomegranate Arils under Low-Temperature Storage (M.Tech)

PATENTS

1. Granted “Preparation of Cookies from Pomegranate Peel, Bengal Gram Husk and Mung Dal” (Patent No.: 430194)
2. MASKING OF UNPLEASANT AROMA OF CLOVE ESSENTIAL OIL ON KHASI MANDARINS FRUITS” (Filed), Application No. 202411084138. Dated. 4/11/2024

AWARDS/ACHIEVEMENTS

1. Listed in world top 2% scientist, by ELSEVIER and Stanford University's Top 2% Scientists list.
2. Dr. S. Radhakrishnan visionary mentor award by TRETAYUG FOUNDATION (RECOGNISED BY GOVT OF INDIA) on Sept. 6. 2025.
3. Excellence certificate for reviewing by Journal of Experimental Agriculture International, 2021.
4. Excellence certificate for reviewing by Asian Journal of Agricultural and Horticultural Research, 2021.
5. Excellence certificate for reviewing by Asian Journal of Fisheries & Aquatic Research, 2021.

6. International Best Research Award 2020 on new science invention, (NESIN), Science Father.
7. InSc Young Researcher Award 2020.
8. Excellence award by Asian Research Journal of Agriculture for outstanding contribution to the quality of the journal 2020.
9. NIFTEM **Ph.D. Fellowship Award** 2015-2019.
10. Second prize in poster presentation entitled “Agro-food Sector: Challenges and Opportunities for Sustainable Development” in AFST 2017 held at Eternal University, Baru Sahib (HP) from 24th to 25th March 2017.
11. 3rd prize in Village Adoption Programme organized from 12th to 17th November 2016 for outstanding efforts and work accomplished in village Bastara, Karnal (Haryana).

PUBLICATIONS BOOKS/ PAPERS/BOOK CHAPTERS

1. Edited Book “Futuristic Trends in Agriculture Engineering & Food Sciences” in IIP publisher.

LIST OF RESEARCH & REVIEW ARTICLES

First Author / *Corresponding Author

S. No.	Author(s)	Year	Title of Paper	Name of the Journal, volume/ page numbers	Publisher	IF
1	Prasad, J., KUMAR, N*., Pratibha, Jaiswal, R. et al.	2025	Biopolymer Based Composite Packaging: A Sustainable Approach for Fruits and Vegetables Preservation	Applied Food Research, 5 (2), 101211	Elsevier	6.2
2	Joshi, D., Chauhan, K., Kumar, D., Taneja, NK, Oberoi, HS, KUMAR, N*.	2025	Effect of Preprocessing on Nutritional, Physico- Chemical, Functional, Antinutrients and Invitro Digestibility of Selected Beans (Adzuki, Black Soybean, and Fava beans): Optimization and Characterization	Legume Science 7 (3), 1-18	Wiley	5.0
3	Yadav, A., KUMAR, N*., Upadhyay, A., Pavlic, B., Kumar, A., Kaushik, N	2025	A Sustainable Approach to Turning Mango Kernel Waste Starch into Edible Coating with Lemongrass Essential Oils for Shelf-life Extension of Guava Fruits	Starch – Stärke 77 (10), 1-13	Wiley	2.7
4	Mehra, M., KUMAR, N*., Ojha, A.	2025	Development and characterization of watermelon seeds flour-based films functionalized with oregano essential oil for food packaging applications	Journal of Food Measurement and Characterization, 19, 8450–8468,	Springer Nature	3.3
5	Joshi, D., Dobhal, N, KUMAR, N*., Kaushik, N.	2025	Valorization of Papaya Peel into Value-Added Khajure: A Nutritional and Physico Chemical Characterization	Food and Humanity 5 (100796), 1-12	Elsevier	1.7
6	Yadav, A., Poonia, A., KUMAR, N*.,		Yam Starch Based Active Edible Films Functionalized with Pomegranate Peel and Leaf Extract for Potential Food Packaging Application	International Journal of Postharvest Technology and Innovation (Accepted)	Inder science	0.86
7	Prasad, J., KUMAR, N*., Sharma, S.P.,	2025	Shelf-life extension of guava and eggplant fruits using chitosan-sodium alginate based antimicrobial composite coating	Plant Science Today, 12(3), 1-11	Horizon E publishing Group	0.8

			functionalized with clove-soy lecithin nanoemulsion			
8	Singh, M.K., Mann, S., Chauhan, K., Kataria, A., Toor. B.S., KUMAR, N*	2025	Physicochemical, functional, rheological, and thermal properties of underutilized millets kernels and flours: A comparative approach	Food and Raw Materials (Accepted)	Kemerovo State University (Russian Federation)	1.3
9	Prasad, J., Sharma, S.P., KUMAR, N*., Jaiswal, R., Upadhyay, A.	2025	Development and Characterization of Chitosan-based Composite Coating/Films Encapsulated with Clove Nanoemulsion for Potential Postharvest Preservation	International Journal of Postharvest Technology and Innovation, 9(4), 364–387.	Inder science	0.86
10	Yadav, A., KUMAR, N*., Upadhyay, A., Pratibha, Kieliszek, M.	2024	Mango Kernel Starch-Based Edible Coating with Lemongrass Oil: A Sustainable Solution for Extending Tomato Shelf Life	Journal of Food Measurement and Characterization, 19, 1929–1945	Springer Nature	3.3
11	Mehra, M., KUMAR, N*., Ojha, A., Upadhyay, A.	2024	Extending the postharvest shelf life of sweet orange (<i>Citrus sinensis L.</i>) fruits using muskmelon seeds flour based edible coatings functionalized with oregano essential oil	Journal of Food Measurement and Characterization, 18, 8472–8488	Springer Nature	3.3
12	Himanshu, KUMAR, N*., Khangwal, I., Upadhyay, A.	2024	Assessment of Nutritional, Phytochemicals, Antioxidant and antibacterial activities of Date Palm (<i>Phoenix dactylifera</i>) seeds	Discover Food (2024) 4:151	Springer Nature	3.7
13	Thamarsha, A.K., KUMAR, N*. et al.,	2024	A Review of Functional Properties and Applications of Legume-Based Edible Coatings	Legume Science 6 (4), 1-24. e70004	Wiley	5.0
14	Karadbhajne S.V., Prashant Lungade, P., Sahurkar M.R., Dave, J., Subhash V. Pawde, S.V., KUMAR, N*., et al.,	2025	Harnessing of Green Pea Peel Waste for Extraction of Phenolic Compounds Using Ultrasonic Assisted Extraction Technique	Polish Journal of Environmental Studies, 34(5), 6227-6236	Firma Wydawnicza HARD s.c. Jerzy Radecki Hanna Radecka	1.3
15	KUMAR N., S. Khan et al.	2024	Development and characterization of novel starch (mango kernel and litchi seed) based active edible coatings and films using ultrasonication: Effects on postharvest shelf life of Khasi mandarins	Sustainable Chemistry and Pharmacy, 39(2024), 1-17	Elsevier	6.5
16	Shinde, M.M. Malik, M., Kaur, K., Gahlawat, V.K., KUMAR, N*., et al.	2024	Formularization and Characterization of Guar Gum and Almond Gum based Composite Coating and their Application for Shelf-life Extension of Okra (<i>Hibiscus esculentus</i>)	International Journal of Biological Macromolecules, 262, 129630, 1-16	Elsevier	8.5
17	KUMAR N., Upadhyay, A., Shukla, S. et al.	2024	Next Generation Edible Nanoformulations for Improving Postharvest Shelf Life of Citrus Fruits	Journal of Food Measurement and Characterization 18, 1825–1856	Springer Nature	3.3
18	KUMAR N*., Pratibha,	2023	Recent Trends in Edible Packaging for Food Applications - Perspective for the Future	Food Engineering Review	Springer Nature	7.6

	Prasad, J., Yadav, Upadhyay, A. et al.			15, 718–747		
19	KUMAR, N. , Upadhyay, A., Shukla, S.	2023	Effects of essential oils and ultrasonic treatments on properties of edible coatings and their application on citrus fruits	Starch – Stärke, 2300104, 1-16	Wiley	2.7
20	Dave, J., KUMAR, N*. , Upadhyay, A., Purba, DT., et al.	2023	Sustainable Fish Oil Extraction from Catfish Visceral Biomass: A Comparative Study between High-shear Homogenization and High-frequency Ultrasound on Wet Rendering Process	Food and Raw Materials 2025 (13), 94-106	Kemerovo State University (Russian Federation)	1.3
21	Shenbagam, A., KUMAR N*. , Kumar, R., Upadhyay, A., Marek, K.	2023	Characterization of Aloe Vera Gel-Based Edible Coating with Orange Peel Essential Oil and Its Preservation Effects on Button Mushroom (<i>Agaricus bisporus</i>)	Food and Bioprocess Technology 16, 2877–2897	Springer Nature	5.8
22	Sharma, A., Ranjit, R., Pratibha, KUMAR, N*. , Kumar M., Giri, BS	2023	Nanoparticles Based Nanosensors: Principles and their Applications in Active Packaging for Food Quality and Safety Detection	Biochemical Engineering Journal 193, 108861.	Elsevier	4.3
23	Prasad, J., Dixit, A., Sharma, SP., Mwakosya, AW. Petkoska, AT., Upadhyay, A., KUMAR, N*.	2023	Nanoemulsion-based active packaging for food products	Food and Raw Materials 12(1), 22–36	Kemerovo State University (Russian Federation)	1.3
24	KUMAR, N*. , Pratibha, Upadhyay, Petkoska, A.T., Gniewosz, M., Kieliszek, M.	2022	Extending the shelf life of mango (<i>Mangifera indica</i> L.) fruits by using edible coating based on xanthan gum and pomegranate peel extract	Journal of Food Measurement and Characterization 17, 1300–1308	Springer Nature	3.3
25	KUMAR, N. , Daniloski, D., Pratibha, Neeraj, et al.	2022	Pomegranate peel extract - a natural bioactive addition to novel active edible packaging,	Food Research International 156, 111378	Elsevier	8.0
26	KUMAR, N. , Pratibha, Neeraj, et al.	2022	Effects of drying methods and solvent extraction on quantification of major bioactive compounds in pomegranate peel waste using HPLC	Scientific Reports 12(1), 1-9	Springer Nature	3.9
27	Kaur, H. S., Sinha, P., Emanuel, N., KUMAR, N*. et al.	2021	Effect of Ultrasound Assisted Pretreatment on Extraction Efficiency of Essential Oil and Bioactive Compounds from Citrus Waste By-Products	Separations 8(12), 244	MDPI	2.7
28	Yadav, A., KUMAR, N*. , Upadhyay, A., Pratibha, & Anurag, R. K	2021	Edible Packaging from Fruit Processing Waste: A Comprehensive Review	Food Review International, 39 (4), 1-32	Taylor & Francis	6.0
29	KUMAR, N*. , Pratibha, Petkoska, A. T.,	2021	Effect of chitosan-pullulan composite edible coating functionalized	Coatings 11, 764, 1-20	MDPI	2.8

	AL-Hilifi, S. A., & Fawole, O. A.		with pomegranate peel extract on the shelf life of mango(<i>Mangifera indica</i>)			
30	KUMAR, N*., Pratibha, et al.	2021	Chitosan Edible Films Enhanced with Pomegranate Peel Extract: Study on Physical, Biological, Thermal and Barrier Properties	Materials 14, 3305, 1-18	MDPI	3.2
31	KUMAR, N*., Neeraj, Pratibha, & Trajkovska Petkoska, A.	2021	Improved shelf life and quality of Tomato (<i>Solanum lycopersicum</i> L.) by using chitosan-pullulan composite edible coating enriched with pomegranate peel extract	ACS Food Science and Technology 1(4), 500-510.	American Chemical Society	2.8
32	Dhaka, R. K., KUMAR, N*., et al.	2021	Optimization, Characterization and Influence of Microfluidization on Almond Gum based Composite Edible Film	Starch – Stärke 73(5-6), 2000101.	Wiley	2.7
33	KUMAR, N*., Pratibha, Neeraj, Ojha, A., et al.	2021	Effect of active chitosan- pullulan composite edible coating enrich with pomegranate peel extract on the storage quality of green bell pepper	LWT Food Science and Technology 138, 110435	Elsevier	6.6
34	Suhag, R., KUMAR, N*., et al.	2020	Film formation and deposition methods of edible coating on food products: A review	Food Research International 136, 109582	Elsevier	8.0
35	KUMAR, N*., Neeraj, Pratibha, & Singla, M.	2020	Enhancement of Storage Life and Quality Maintenance of Litchi (<i>Litchi Chinensis</i> Sonn.) Fruit Using Chitosan: pullulan Blend Antimicrobial Edible Coating	International Journal of Fruit Science 20(3), S1662-S1680	Taylor and Francis	2.5
36	KUMAR, N*., Pratibha, Neeraj, & Sharma, S.	2020	Effect of Solvents on Physicochemical Properties of Freeze-dried Pomegranate Seed (Cv. Bhagwa)	International Journal of Fruit Science 20(S2), S590-S604	Taylor and Francis	2.5
37	KUMAR, N*; Neeraj	2020	Effect of Ultrasonic Assisted Extraction on the Properties of Freeze-Dried Pomegranate Arils	Current Nutrition & Food Science 16(1), 83 - 89	Bentham Science	1.1
38	KUMAR, N*; Pratibha; Neeraj	2020	Functional properties of pomegranate peel in edible coating/ film: a review	International Journal of Postharvest Technology and Innovation 7 (3), 205-216	Inderscience	0.86
39	KUMAR, N*; Neeraj; Kuljinder, K	2019	Evaluation of In-vitro Antibacterial Activity of Pomegranate (Cv. Ganesh) Peel Extract	Think India Journal 22(33), 115-126	Think India Journal	0
40	KUMAR, N*., Neeraj, Ojha, A., Singh, R.	2019	Preparation and characterization of chitosan – Pullulan blended edible films enrich with pomegranate peel extract	Reactive and Functional Polymers 144, 104350	Elsevier	5.1
41	KUMAR, N*; Neeraj	2019	Polysaccharide-based component and their relevance in edible film/ coating: a review	Nutrients & Food Science 49(5), 793-823	Emerald	1.6
42	KUMAR, N*., Neeraj, Kumar, S.	2018	Functional Properties of Pomegranate (<i>Punica granatum</i> L.)	The Pharma Innovation Journal 7(10), 71-81	AkiNik	Naas (5.03)
43	KUMAR, N*., Neeraj	2018	Study on physico-chemical and antioxidant properties of pomegranate peel	Journal of Pharmacognosy and Phytochemistry 7(3), 2141-2147	AkiNik	Naas (5.21)

Co-Authors

S. No.	Author(s)	Year of Publication	Title of Paper	Name of the Journal, volume/page numbers	Name of the Publisher	IF
1	Patil, R.J., Kumar, P., Goswami, S., Kishore, A., KUMAR, N. , et al.	2025	Valorization of pomegranate peel powder/extract for development of sweet potato starch based active packaging film and application for shelf life extension of bread.	Journal of Food Measurement and Characterization, https://doi.org/10.1007/s11694-025-03618-7	Springer Nature	3.3
2	Makhathini, N., KUMAR, N. , Fawole, O. A.	2025	Enhancing circular bioeconomy: Alginate-cellulose nanofibre films/coatings functionalized with encapsulated pomegranate peel extract for postharvest preservation of pomegranate arils.	International Journal of Biological Macromolecules, 309 (2), 142848	Elsevier	8.6
3	Singh, P., Kumar, A., Kumari, N., KUMAR, N. , et al.	2025	Roles of Artificial Intelligence (AI) in the Innovation of Agriculture Sector: A Systematic Review	Plant Science Today, 12 (1), 1-11	Horizon E publishing Group	0.8
4	Himanshu, KUMAR, N. , Khangwal, I.	2025	Functional attributes and bio-prospects of fruit peel waste	Food and Raw Materials, 14(1), 84-103	Kemerovo State University	1.3
5	Neha Pandey, N., KUMAR, N. , Upadhyay, A.	2024	Soy Protein Modification Strategies, Functional Interplay and Industrial Relevance: A Review	Journal of Food Measurement and Characterization, 19, 785–805	Springer Nature	3.3
6	Dixit, A., KUMAR, N. , Upadhyay, A. et al.	2024	Application of Sensing Methods in Agricultural Sector for the Detection of Pesticide Residues: An Overview	Plant Science Today, 11(4), 01–16	Horizon E publishing Group	0.8
7	Himani, Khangwal, I., KUMAR, N. , Himanshu	2024	Phylogenetic Analysis and Antioxidant Activity of the Endophytic Bacterial Isolates from <i>Kalanchoe pinnata</i>	Frontiers in Health Informatics 13 (3), 4648-4659	Frontiers in Health Informatics Publications	0.2
8	Himanshu, KUMAR, N. , Himani, Khangwal, I	2024	Assessment of Nutritional Profile, Phytochemical Screening, and Bioactivities of <i>Citrus sinensis</i> Peel Extract	African Journal of Biomedical Research, 27(3s), 2745-2754	Biomedical Communications Group	0.0
9	Dave, J., Ali, A.M.M, KUMAR, N. , Nagarajan, M., Kieliszek, M., Bavisetty, S.C.B	2024	Investigating the impact of wet rendering (solventless method) on PUFA-rich oil from catfish (<i>Clarias magur</i>) viscera	Open Life Sciences, 19, 20220903, 1-14	Walter de Gruyter, Springer Science+Business Media	1.7
10	Heena, KUMAR, N. , Singh, R. et al.	2024	Application and functional properties of millet starch: Wet milling extraction process and different modification approaches	Heliyon, 10 (3), e25330	Cell Press/ Elsevier	3.6
11	Kiran Mor, Pratibha, KUMAR, N.	2024	Effect of high yielding varieties technology in agriculture: evidence from rural India	International Journal of Postharvest	Inderscience	0.86

				Technology and Innovation, 9(2), 128-145		
12	Bodana, V., Swer, TL., KUMAR, N. , et al.	2023	Development and characterization of pomegranate peel extract-functionalized jackfruit seed starch-based edible films and coatings for prolonging the shelf life of white grapes	International Journal of Biological Macromolecules 254, 127234.	Elsevier	8.6
13	Heena, Singh, R. KUMAR, N. , et al.	2023	Effects of wet-milling extraction methods on nutritional, functional and structural properties of barnyard millet Starch	Starch - Stärke 2300136, 1 - 10	Wiley	2.7
14	Dave, J., Ali, A. M. M., Kudre, T., Nukhthamna, P., KUMAR, N. , Kieliszek, M.	2023	Influence of solvent-free extraction of fish oil from catfish (<i>Clarias magur</i>) heads using a Taguchi orthogonal array design: A qualitative and quantitative approach.	Open Life Sciences, 18(1), 20220789	Walter de Gruyter, Springer Science+Business Media	1.7
15	Koraqi, H., Petkoska, A.T., Khalid, W., KUMAR, N. , et al.	2023	Optimization of experimental conditions for bioactive compounds recovery from raspberry fruits (<i>Rubus idaeus</i> L.) by using combinations of ultrasound-assisted extraction and deep eutectic solvents	Applied Food Research, 3(2), 100346	Elsevier	6.2
16	Sharma, A., Kumar, R., KUMAR, N. , Saxena, V.	2023	Machine learning driven portable Vis-SWNIR spectrophotometer for non-destructive classification of raw tomatoes based on lycopene content	Vibrational Spectroscopy, 130, 103628	Elsevier	3.1
17	Sharma, A., Kumar, R., KUMAR, N. , et al.	2023	Chemometrics driven portable Vis-SWNIR spectrophotometer for non-destructive quality evaluation of raw tomatoes	Chemometrics and Intelligent Laboratory Systems, 242, 105001	Elsevier	3.7
18	Chinchkar, AV, Singh, A., 1, Anurag Upadhyay, S., Singh, R., Singh, S. KUMAR, N. et al.	2023	Comparison of Shelf-Life Extension of Capsicum (<i>Capsicum annum</i>) by Polyvinyl Acetate and Shellac Coating During Refrigerated Storage	Journal of Biobased Materials and Bioenergy 17, 1–10	American Scientific Publishers	0.0
19	Saroj, Upadhyay, A., Shukla, S., KUMAR, N.	2023	Formulation and Sensory Attributes of the Pickle Made from Buttermilk Treated Green Chilli (<i>Capsicum annum</i>)	Asian Journal of Dairy and Food Research 2045, 1-6	Agricultural Research Communication Centre	0.176
20	Sagar, NA, KUMAR, N. , et al.	2022	Prospecting the role of nanotechnology in extending the shelf-life of fresh produce and in developing advanced packaging.	Food Packaging and Shelf Life. 34, 100955	Elsevier	10.6
21	Al-Hilifi, S.A., Al-Ali, R.M., AL-	2022	Physicochemical, morphological, and functional characterization of	Gel 8(10), 645	MDPI	5.3

	Ibresam, O.T., KUMAR, N. , et al.		edible anthocyanin-enriched aloe vera coatings on fresh figs (<i>Ficus carica</i> L.).			
22	Yadav, A., KUMAR, N. , et al.	2022	Effect of mango kernel seed starch-based active edible coating functionalized with lemongrass essential oil on the shelf-life of guava fruits	Quality Assurance and Safety of Crops & Foods 14(3), 1–13	Codon Publications	5.3
23	Sharma, A., Tiwari, A. D., Kumari, M., KUMAR, N. , et al.	2022	Artificial intelligence-based prediction of lycopene content in raw tomatoes using physicochemical attributes	Phytochemical Analysis 34(7), 729-744	Wiley	2.6
24	Singla, M., Pareek, S., KUMAR, N. , et al.	2022	Chitosan-Cinnamon Oil Coating Maintains Quality and Extends Shelf Life of Ready-to-Use Pomegranate Arils under Low-Temperature Storage	Journal of Food Quality 2022, 1-18	Wiley/Hindawi	2.9
25	Yadav, A., KUMAR, N. , et al.	2022	Edible coating as postharvest management strategy for shelf life extension of fresh tomato (<i>Solanum lycopersicum</i> L.): An Overview	Journal of Food Science 87(6), 2256-2290	IFT, Wiley	3.4
26	Yadav, A., KUMAR, N. , et al.	2022	Recent Advances in Novel Packaging Technologies for Shelf-Life Extension of Guava Fruits for Retaining Health Benefits for Longer Duration	Plants 11(4), 547	MDPI	4.1
27	Helal, M., Sami, R., Algarni, E., Alshehry, G., Aljumayy, H., Al-Mushhin, A., Nada, Murthy, KUMAR, N. et al.	2022	Active Bionanocomposite Coating Quality Assessments of Some Cucumber Properties with Some Diverse Applications during Storage Condition by Chitosan, Nano Titanium Oxide Crystals, and Sodium Tripolyphosphate	Crystals 12(2), 131	MDPI	2.4
28	P. Baniwal, R. Mehra, KUMAR, N. , et al.	2021	Cereals: Functional constituents and its health benefits	The Pharma Innovation Journal 10(3), 01-07	AkiNik Publications	Naas (5.03)
29	Himani; KUMAR, N. , et al.	2020	Physical, Mechanical, Functional and Thermal Characterization of Chitosan: Maltodextrin Blends Edible Oral Film Incorporated with Aqueous Clove Extract	Starch - Stärke 73(1-2), 1900220	Wiley	2.7
30	Pratap, D., Maurya, V. K., KUMAR, N. , et al.	2018	Studies on Physico-chemical and Organoleptic Properties of Soymilk Blended Dahi (Curd) with Toned Milk (Cattle Milk)	Current Nutrition & Food Science 14, 61-67	Bentham Science	1.1

Book Chapters

First Author / *Corresponding Author

S.No	Authors	Name of Book	Chapter title	Year of Publication	Name of publishers
1	Dixit, A., KUMAR, N* , Upadhyay, A., Kaushik, N.	Nanotechnology in Pre- and Postharvest Horticulture: Applications and Developments	Nanotechnology in the Detoxification of Agrochemical Residues	2025 (Accepted)	CRC Press, Taylor & Francis Group.
2	Yadav, A., KUMAR, N* , Dixit A., Upadhyay, A.	Nonthermal Food Engineering Operations	Nano Technology in Food Packaging	2024, 285-317	Wiley
3	KUMAR, N. , Upadhyay, A.	Recent Advances in Postharvest Technologies	Nanocomposites: An Innovative Technology for Fruit and Vegetables Preservation	2024 (2), 199-224	Springer Nature
4	KUMAR, N. , Tripathi, S., Pratibha et al.	In: Poonia, A., Trajkovska Petkoska, A. (eds) Whey Valorization. Springer, Singapore. https://doi.org/10.1007/978-981-99-5459-9_3	Whey Protein Based Edible Coatings: Recent Trends	2023 https://doi.org/10.1007/978-981-99-5459-9_10	Springer Nature
5	KUMAR, N. , Heena, et al..	In: Poonia, A., Trajkovska Petkoska, A. (eds) Whey Valorization. Springer, Singapore. https://doi.org/10.1007/978-981-99-5459-9_3	Utilization of Whey: Sustainable Trends and Future Developments	2023 https://doi.org/10.1007/978-981-99-5459-9_3	Springer Nature
6	H. M. Prathibhani C. Kumarihami, KUMAR, N* , Pratibha et al.	Natural Materials for Food Packaging Application	Effect of Natural Materials on Thermal Properties of Food Packaging Film: An Overview	2023 https://doi.org/10.1002/9783527837304.ch12	Wiley
7	KUMAR, N.* , Pratibha, et al.	Food Packaging: Safety, Management and Quality	Applications of Edible Packaging for the Preservation of Mushrooms	2022 , 229-266	Nova
8	KUMAR, N.* , Pratibha et al.	Reference Series in Phytochemistry. Gums, Resins and Latexes of Plant Origin	Natural Gums for Fruits and Vegetables Preservation: A Review	2021, 1-37	Springer Nature
9	KUMAR, N. , Pratibha et al.	Reference Series in Phytochemistry. Bioactive Compounds in Underutilized Vegetables and Legumes	Bioactive Compounds of Moringa (Moringa Species), 1-22	2021	Springer Nature
10	KUMAR, N.* , Neeraj, Pratibha	Advancement in Functional Food Ingredients	Phenolic Constituents and their Properties of Pomegranate Peel (PunicaGranatum L.)	2019	Narendra Publishing House

Co-authors

S.No	Authors	Name of Book	Chapter title	Year of Publication	Name of publishers
1	Petkoska, A.T., Trajkovska, B., Koraqi, H. KUMAR, N. , Broach, A.T.	Unleashing the Power of Functional Foods and Novel Bioactives	Sustainable farming practices: nurturing the future of functional foods	2025, 423-448	Elsevier
2	Milosević, S., I Teslić, N., Sahil, KUMAR, N. , Bozović, D., Stupar, A., Pavlić, B.	Environmental Remediation for Agri-Food Industry Using Nanotechnology and Sustainable Strategies	Production of extracts for (functional) food manufacturing and environment	2025, 31-58	Elsevier
3	Upadhyay, A., KUMAR, N. , Yadav, A.	Food Storage Engineering	Cold chain management of perishable foods	Accepted	Apple Press Academy
4	Petkoska, A.T., KUMAR, N. , Pratibha, Koraqi, H., Ali -Haliti, H., Broach, A.T.	Sustainable Materials for Food Packaging and Preservation: Food Security and Sustainability	Bionanocomposites in food packaging and preservation	2024, Chapter-7, 149-170	Elsevier
5	Singh, M.K., Emanuel, N., KUMAR, N. , et al.	Millet Marvels: A Sustainable Food Renaissance	Nutritional and Functional Properties of Millets: Processing and Health Benefits	2023, Chapter-3, 25-64	Nipa Publisher
6	Singh, M.K., KUMAR, N. , Taneja, N.K., Chauhan, K.	Millet Marvels: A Sustainable Food Renaissance	Browntop Millet (Urochloa ramosa)	2023, Chapter-12, 243-263	Nipa Publisher
7	Kumar, A., Singh, R., Sehrawat, R., KUMAR, N. , Pratibha	Advances in Food Chemistry	Probiotics	2022, 497-518	Springer Nature
8	Petkoska A. T., Daniloski, D., KUMAR, N. , Pratibha, Broach, A.T.	Sustainable Packaging, Environmental Footprints and Eco-design of Products and Processes.	Biobased Materials as a Sustainable Potential for Edible Packaging	2021, 111-135	Springer Nature
9	Petkoska A. T., Daniloski, D., KUMAR, N. , Pratibha, Broach, A.T.	Sustainable Packaging, Environmental Footprints and Eco-design of Products and Processes.	Active Edible Packaging: A sustainable Way to Deliver Functional Bioactive Compounds and Nutraceuticals	2021, 225-264	Springer Nature
10	Yadav, S., KUMAR, N. , Pratibha, Yadav, P.	Advancement in Functional Food Ingredients	Nutraceutical: Functional foods and their Properties	2019	Narendra Publishing House
11	Nayeem, M., Rattu, G., Dhaka, R., Kashyap, A.K., KUMAR, N. , and Kumar, P.	Novel Dairy Processing Technologies: Techniques, Management	Dairy Food: Allergy and Intolerance	2018	CRC Press

INTERNATIONAL SCIENTIFIC COMMITTEE MEMBER

1st International Scientific Conference on Food Science, Nutrition, Innovative Technologies and Sustainability at University "St. Kliment Ohridski" - Bitola, Faculty of Technology and Technical Sciences - Veles, (Dimitar Vlahov no. 57, 1400 Veles, North Macedonia

MEMBERSHIP OF ACADEMIC/PROFESSIONAL BODIES

1. Member of Faculty Research Committee (FRC) Amity University (18 August 2025-15 August 2027)
2. Life Time Member Science-I (August 2025)
3. Member of the International Science Reserve (Since August 2025)
4. Member of Global Food Regulatory Science Society (GFoRSS) (2025)
5. Life Time Member- Institute of Scholar (InSc) (Since 2020)
6. Life Time Member- Social Science and Humanities Research Association (SSHRA) (Since 2019)
7. Life Time Member- Scientific & Technical Research Association (STRA)(Since 2019)
8. Life Time Member- Asia Society of Researchers (ASR) (Since 2020)

EDITOR

1. Scientific Report (Editorial Board Member)
2. Research Journal of Food Science and Technology (Editor)
3. Plant Science Today (Section Editor)
4. PLOS ONE (Academic Editor)
5. Discover Biotechnology (Editorial Board)
6. Advanced Research in Food Chemistry and Food Science (Editorial Board)
7. Asian Food Science Journal (Academic Editor)
8. American Journal of Agricultural and Biological Sciences (Editor)
9. Journal of Microbiology and Biotechnology Reports (Executive Editor)
10. Food and Raw Materials (Editorial Board)
11. Topic Editor in Frontiers in Food Science and Technology “Innovation and Advances in Packaging, Handling, and Control of Foods in the Cold Chain” (SPECIAL ISSUE)
12. Topic Editor in Frontiers in Food Science and Technology “The Power of Pomegranate: Unlocking its Health Benefits” (SPECIAL ISSUE)
13. Guest Associate Editor in Nutrition and Food Science Technology (Frontier)
14. Guest Editor in Polymer (MDPI) “Application of polymer materials in food packaging” (SPECIAL ISSUE)
15. Guest Editor “Sustainable Food Technology (Royal Society of Chemistry)”
16. Guest Editor “Biopolymers Production from Agro-Food Waste: Applications as Bio-Based Materials” special issue (Discover Polymers)
17. Deep Science Publishing (Editor)
18. Guest Editor in FOOD MDPI “Advances in Post-Harvest Technologies and Comprehensive Evaluation of Quality in Fresh and Processed Fruits and Vegetables” (Special Issue)

INVITED LECTURES

1. Speaker at the High-End Workshop (KARYASHALA) on “*Edible Films and Coatings for Shelf-Life Extension of Foods* (1-5 July, 2024” organized by Amity University on 3rd July 2024.
2. 6th International Symposium on *Phytochemicals in Medicine and Food* (6-ISPMF), China 08.05-13, 2022 (online)
3. 5th International Symposium on *Phytochemicals in Medicine and Food*, Nanchang, China on 25-30 Aug 2021 (Online).

LIST OF CONFERENCES, SEMINARS, WORKSHOPS AND SUMMITS

ORAL PRESENTATIONS (INTERNATIONAL / NATIONAL CONFERENCES)

1. Delivered presentation on “Valorization of Fruit and Vegetable By-Products: Bioactive compounds, Extraction and Applications” in 1st International Scientific Conference, 2025 on Food Science, Nutrition, Innovative Technologies and Sustainability organized by University "St. Kliment Ohridski" - Bitola, Dimitar Vlahov 57, 1400 Veles, Republic of North Macedonia on 3rd October 2025.
2. Delivered oral presentation on Functional applications of essential oils in food packaging system at 1st International Conference on “Recent Trends in Chemical Sciences & Sustainable Energy” in NIT, Delhi (24-25 March, 2023).
3. Delivered Oral Presentation on “Influence of Essential Oils on Xanthan Gum-based Nano-formulated Edible Film” in NANOFORAGRI, TERI, New Delhi on 8-9 Dec. 2021.
4. Delivered oral presentation entitled “Role of Marketing in Sustainable Development: A Global Perspective” in International Conference on Business, Economics and Sustainable Development, 2018 (ICBESD 2018) organized by TERI University, New Delhi on 22-23rd Feb. 2018. (ISBN: 9789353005085)
5. 3rd National Conference on Contemporary Food Processing and Preservation Technologies held at Shoolini University, Solan from 12-13th April 2018. “Application of the edible film/coating in the Food Industries”. NABARD sponsored Third National Conference on Contemporary Food Processing and Preservation Technologies held at Shoolini University, Solan (ISBN: 978-93-86558-33-6).

ATTENDED EVENTS

1. Attended Scientific Writing Workshop organized by ACS Publications designed for institutions participating in
2. One Nation One Subscription on 26th August 2025 Presented by ACS Publications
3. 4th International Conference & Exhibition India Farm 2 Fork organized by PHD Chamber of Commerce and Industry in association with MOFPI, at PHD House, New Delhi on 14th - 15th December 2016.
4. 3rd International Conference on “Indian Industrial Hemp: Future Ahead” at PHD House, New Delhi on 30th November 2016.
5. International Food Innovation “Doubling Farmers Income through Science, Technology, and Innovation” EXPO and SUMMIT 2016 at PHD Chamber, New Delhi on 22nd - 23rd November 2016.
6. First International Conference on “Processed Indian Traditional Foods” organized by F1rst, New Delhi on 16th September 2016.
7. International Conference on “Food Value Chain: Innovations and Challenges” organized by National Institute of Food Technology Entrepreneurship and Management, Sonapat on 17th -18th March 2016.

POSTER PRESENTATION AND PARTICIPATED (NATIONAL CONFERENCES/SEMINARS)

1. Attended and poster presentation entitled “Physico-chemical attributes of polysaccharide based edible film enrich with pomegranate peel extract” in 1st National Conference on neglected and underutilized crop species for food, nutrition, energy and environment (NUCS- 2019) at NIPGR, Delhi on 2nd August 2019.
2. Attended and poster presentation entitled “Development of MSGs-free Instant Noodle Tasremakers Incorporated with Mushroom Powder” in National Symposium on Trends & Innovations in Mushroom Production Technologies, Diversification, Processing and Consumption at Integrated Mushroom R&D Project HAIC Agro R&D Centre, Murthal (Haryana) on 31st January to 2nd February 2019.
3. Attended and poster presentation entitled “Nutraceutical Applications of Mushroom in Food Processing Sector” in National Symposium on Trends & Innovations in Mushroom Production Technologies, Diversification, Processing and Consumption at Integrated Mushroom R&D Project HAIC Agro R&D Centre, Murthal (Haryana) on 31st January to 2nd February 2019.
4. Attended and poster presentation entitled “Development of nutrients enrich yogurt with soy milk and Goji berry extract” in ANVESHAN- STUDENT RESEARCH CONVENTION held at National Institute of Food Technology Entrepreneurship and Management, Sonapat on 16th -17th October 2018.
5. Attended and poster presentation entitled “Development of multi-grain cookies with incorporation of Pomegranate peel, Bengal gram husk and Moong dal” in ANVESHAN- STUDENT RESEARCH

CONVENTION held at National Institute of Food Technology Entrepreneurship and Management, Sonapat on 16th -17th October 2018.

6. Attended and poster presentation entitled “Encapsulation of Vit. D in liposome with soybean phospholipid using spray drying” in AFST 2017 held at Eternal University, Baru Sahib (HP) from 24-25th March 2017.(ISBN: 978-9382068).
7. Attended and poster presentation entitled “Agro-food Sector: Challenges and Opportunities for Sustainable Development” in AFST 2017 held at Eternal University, Baru Sahib (HP) from 24-25th March 2017 (ISBN: 978-9382068).
8. Attended National Conference on “Promoting Public-Private Sector Partnerships in Enhancing Food Value Chains in India” organized by National Productivity Council, New Delhi, 3rd - 4th November, 2016.

SUMMITS

INTERNATIONAL

1. Attended “12th Sustainability Summit: 2030 Agenda: Driving Inclusive Growth” organized by CII Center of Excellence for Sustainable Development, New Delhi on 6th - 7th September 2017.
2. Attended “Global Grain, Food & Feed (G2F2)” organized by TEFLA, New Delhi on 1st - 3rd February 2017.
3. Attended “World sustainable development summit” Beyond 2015: People, Planet and Progress organized by TERI in New Delhi on 5th to 8th October 2016.

NATIONAL

1. Attended National agriculture marketing summit: To double farmers income organized by FICCI on 14th July 2017.
2. Attended 89th Annual General Meeting & National Business Summit of FICCI 'Reforms for Sustaining High Growth' organized by FICCI, New Delhi on 16th -17th December 2016.

WORKSHOPS

1. Two Days farmer Workshop on “The stubble struggle: Dialogue on the burning issue and practical remedies” Organized by National Institute of Food Technology Entrepreneurship and Management, Sonapat on 28-29 Sept. 2019 Sponsored by US-India Educational Foundation, New Delhi.
2. Three Days Workshop on “Publishing Ethics and Research Methodology” organized by Dr. B. R. Ambedkar Central Library, Jawaharlal Nehru University, New Delhi from Aug 12th - 14th, 2020.
3. FSSAI-CHIFSS-NIFTEM technical workshop on global standards risk based thinking on 27th Feb. 2019 at NIFTEM, Sonapat.
4. Three Days Workshop on “Method, Techniques & Analysis of Qualitative Research” organized by National Institute of Food Technology Entrepreneurship and Management, Sonapat on 17th – 19th September, 2018.
5. Workshop on “Intellectual Property Rights” organized by National Institute of Food Technology Entrepreneurship and Management, Sonapat on 12th May 2018.
6. Workshop on “Author Workshop” organized by National Institute of Food Technology Entrepreneurship and Management, Sonapat & Elsevier on 20th September 2017.
7. Workshop on Rural Marketing, Big Data Analytics in Agriculture, Digitization in Agri Supply Chain, Commodity Trading, Entrepreneurship in Food and Agribusiness” during Amaethon 2017, organized by Indian Institute of Management Ahmedabad from 6th - 8th January 2017.
8. One-day BIRAC Workshop on “Bio-Entrepreneurship, Grant Writing & Intellectual Property Management” organized by the International Center for Genetic Engineering and Biotechnology (ICGEB), New Delhi on 19th December 2016.
9. National Workshop on “Qualitative Research Methods” organized by Fortune Institute of International Business (FIIB), New Delhi on 24th September 2016.
10. International Workshop on “Quality Management in Grain Industry’ organized by Department of Food Science and Technology, National Institute of Food Technology Entrepreneurship and Management, Sonapat on 19th March 2016.

CERTIFICATE COURSE

1. Attended Certificate course for Graduate Engineers- Planning and Designing of Cold Chain Infrastructure” from 19th - 30th September 2016 at National Institute of Food Technology Entrepreneurship and Management, Sonapat.

ONLINE CERTIFICATION SERIES

1. Successfully completing Web of Science Basic Series (December, 2019)
2. Successfully completing Web of Science Advanced Series (December, 2019)

FACULTY DEVELOPMENT PROGRAM

1. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Postharvest and Processing (Food Technology)" from 2-11-20 to 6-11-20 at National Institute of Food Technology Entrepreneurship and Management.
2. Participated & completed successfully AICTE Training and Learning (ATAL) Academy Online FDP on "Novel Materials" from 2020-11-9 to 2020-11-13 at SRM Institute of Science and Technology.

MEMBERSHIP /ORGANIZER

- ❖ Session coordinator in short term skill development course on “Essentials of space technology in Agriculture Sector” at Amity University, Noida during (27 July 2025-1 August 2025).
- ❖ Organized 3 days training program on Food Processing for NABARD Officials on Feb. 17-19, 2025, at NIFTEM-K.
- ❖ Member, Board of Studies, Department of Agriculture and Environmental Sciences, National Institute of Food Technology Entrepreneurship and Management, Sonapat (2018).
- ❖ Member-Organizing Committee for 10 Days Entrepreneurship Development Programme, “On Construction, Expansion, Modernization and Maintenance of Cold Chain Units” held at NIFTEM Sonapat on 11 Sept. to 20 Sept. 2019.
- ❖ Co-mentor, Village Adoption Programme (NIFTEM) at village Bastara, Karnal (Haryana) during 28th March to 3rd April 2017.
- ❖ Co-mentor, Village Adoption Programme (NIFTEM) at village Bastara, Karnal(Haryana) during 12th to 17th November 2016.
- ❖ Member of handbook publication team of VAP HANDBOOK For Mentors and Students “Village Adoption Programme Cell” Dept. of AES (NIFTEM), 2020.
- ❖ Member-Organizing Committee for National Symposium on “Trends and Innovations in Mushroom Production Technologies, Diversification, Processing and Consumption” held at HAIC, Murthal Sonapat on 31st January to 2nd February 2019.
- ❖ Member-Organizing Committee for ‘Three Day Workshop on Method, Techniques and Analysis of Qualitative Research’ held at NIFTEM, Sonapat on 17th to 19th September 2018.
- ❖ Member-Organizing Committee for ‘One Day Workshop on Intellectual Property Rights (IPRs)’ sponsored by Patent Information Centre, Haryana State Council for Science and Technology, Panchkula (Haryana) held at NIFTEM, Sonapat on 12th May 2018.
- ❖ Student- Workshop Coordinator for B.Tech. Induction Programme 2018 on 9th to 29th August 2018.
- ❖ Member, NIFTEM Anti-Ragging committee (2019, 2018).
- ❖ Member- Organizing Committee for NIFTEM Convocation 2018 on 10th February 2018.
- ❖ Student Representative of SAMARTHYA, NIFTEM Sports Society in session 2018-19.
- ❖ Student- Event Coordinator of NIFTEM Sports League 2018 at NIFTEM campus during 19th September to 3rd October 2018.
- ❖ Convener of SAMARTHYA, NIFTEM Sports Society from July, 2017 to May, 2018.
- ❖ Member-Organizing Committee of NIFTEM Sports League 2017 at NIFTEM campus during 8th to 15th November 2017.
- ❖ Student Coordinator (NIFTEM), All India Universities Games (AIU) in December 2017.
- ❖ Sports Manager (NIFTEM), All India Universities Games (AIU) in December 2017.
- ❖ Sports Manager (NIFTEM), Inter Technical Universities Sports Association from 6th - 13th October 2017.
- ❖ Member, NIFTEM Sports Society from September 2015 to June 2017.

- ❖ Member-Organizing Committee of NIFTEM Sports League 2016 at NIFTEM campus during 28th September to 5th October 2016.
- ❖ Student volunteer and member of organizing Committee, International Conference on “Food Value Chain: Innovations and Challenges” and Workshop on “Quality Management in Grain Industry” organized by Department of Food Science and Technology, National Institute of Food Technology Entrepreneurship and Management, Sonapat on 17th to 19th March 2016.