

# DR. MAMTA THAKUR

Assistant Professor, Department of Food Processing Technology,  
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May 28, 1993 | Indian | Female | Married

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**FIELD OF EXPERTISE:** Food Technology (Functional foods, bee products processing, and new products development)

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## EDUCATIONAL CREDENTIALS

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| <b>Doctor of Philosophy, Food Engineering and Technology</b>   | 2017- 2021               |
| Sant Longowal Institute of Engineering and Technology (SLIET)  | Longowal, Punjab, India  |
| <b>Masters of Technology, Food Technology, 89.80%</b>          | 2014-2016                |
| Vasantrao Naik Marathwada Krishi Vidyapeeth (VNMKV)            | Parbhani, MS, India      |
| <b>Bachelors of Technology, Food Technology, 85.60%</b>        | 2010-2014                |
| Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya | Palampur, H.P., India    |
| <b>Senior Secondary School, 87.20%</b>                         | 2010                     |
| H.P. Board of School Education (HPBSE)                         | Dharamshala, H.P., India |
| <b>Higher Secondary School, 89.57%</b>                         | 2008                     |
| H.P. Board of School Education (HPBSE)                         | Dharamshala, H.P., India |

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## THESIS AND DISSERTATION

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| <b>Ph.D. Research Work</b>  | <b>Jan, 2017 – Feb, 2021</b> |
| <b>Title:-</b> Characterization and utilization of bee pollen to develop functional milk powder   |                              |
| <b>Products developed</b> – Functional milk powder  |                              |
| <b>Major Accomplishments:-</b> Use of Research and Development and Laboratory Analytical methods: Physico-Chemical Analysis, Texture analyzer, Colorimeter, Spectrophotometer, Particle size analyzer, XRD, FTIR, SEM, HPLC, GC, MPAES & UHPLC. |                              |
| <b>M. Tech. Final Year Thesis</b>   | <b>Aug, 2015 – May, 2016</b> |
| <b>Title:-</b> Development of non-dairy probiotic beverage based on pomegranate juice.  |                              |
| <b>Products developed</b> – Probiotic pomegranate beverage using mixed culture of lactobacilli.   |                              |
| <b>Major Accomplishments:-</b> Hands on experiences of Research and Development and Laboratory Analytical methods: Microbial and Chemical Analysis, Brookfield viscometer, Colour HunterLab, Spectrophotometer                                  |                              |

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## WORK EXPERIENCE

### 1. Positions held: **Assistant Professor**

Name of the Institute: Department of Food Processing Technology, Department of Food Processing Technology, College of Dairy and Food Technology (Rajasthan University of Veterinary & Animal Sciences, Bikaner), NH-21, Agra Road, Bassi-303301, Jaipur (Rajasthan) India

Period: 07 Aug, 2023 to till date (currently working)

### 2. Positions held: **Assistant Professor**

Name of the Institute: Department of Food Technology, School of Science, ITM University, Gwalior - 474001 (Madhya Pradesh) India

Period: 17 June, 2021 to 24 June 2023 (**2 years**)

### 3. Positions held: **Teaching Assistant**

Name of the Institute: Department of Food Science, Nutrition and Technology, Chaudhary Sarwan Kumar Himachal Pradesh Krishi Vishwavidyalaya (CSKHPKV), Palampur (H.P.) India

Period: 17 Aug, 2016 to 16 Dec, 2016 (**0 year 4 months**)

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## AWARD/PRIZE/FELLOWSHIPS ETC.

- “Best Popular Science Stories” Awardee under “**Augmenting Writing Skills for Articulating Research (AWSAR)**” Department of Science and Technology (DST), Govt. of India (**28 Feb 2020**)
- Recipient of **SLIET Quality Publication Award (2020)** for high quality publications during Ph.D.
- Recipient of **Appreciation Award in Young Scientist category** in 23rd Punjab Science Congress organized by **Punjab Academy of Sciences** at SLIET Longowal during 7-9<sup>th</sup> Feb 2020
- Recipient of **PBC fellowship by Govt. of Israel** for attending Food Safety and Security Summer Institute (2019) held at Tel Aviv University, Tel-Aviv (Israel) during 30 June to 26 July 2019
- **Council of Scientific and Industrial Research – Senior Research Fellowship 2019**
- **Young Scientist Award** in the field of Functional Foods by the Society for Agriculture Innovation and Development, Ranchi (2018).
- **Best Paper Award** in 3<sup>rd</sup> International Conference on Food Properties (iCFP2018) held at Sheraton Sharjah Resort and Spa, Sharjah, UAE (Jan 2018)
- Recipient of **Ministry of Human Resource Development (MHRD) Ph.D. Fellowship**, Government of India (Jan, 2017 onwards)
- **ASRB (ICAR) NET, 2016** and **GATE 2016** qualified
- 1<sup>st</sup> prize in Post it Prove it on the topic “Utilization of Guar Gum Blended with Acacia Gum in Yoghurt” in **National Tech Fest on Food Processing (2015)**, Anand (Gujarat) India organized by AFSTI Mysuru

- Recipient of **Central sector scheme of scholarship for college and university students (MHRD)**, Govt. of India (2010-2014)
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#### **GUEST LECTURES/INVITED TALKS/EXPERT TALKS**

- Delivered an Expert talk on “**Functional Foods: Fundamentals and Future Perspectives**” in Kanya Mahavidyalaya, Jalandhar (The Heritage and Autonomous Institute) on 19 Feb, 2022.
  - Delivered an online lecture for training of craft baker under *Pradhan Mantri Kaushal Vikas Yojana (PMKVY)* during 15-18 March 2024 organized by FICSI, New Delhi, India
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#### **WORKSHOP AND TRAININGS PARTICIPATED**

- Participated in one-week National Workshop on “**Data Analysis with R**” at FBMED, NIFTEM-Kundli, Haryana from 27 June 2024 to 1 July 2024.
  - Participated in one-week online workshop on “**Importance of e-learning in COVID-19 scenario and its future perspectives**” organized by Ghani Khan Choudhury Institute of Engineering and Technology, Malda and Bhartiya Shikshan Mandal, Uttarbhang Prant during 25-29 June 2020
  - Participated in One week Faculty Development Program on “**Pedagogy of scientific writing, reporting and scholarly networks**” organized by Feroze Gandhi Institute of Engineering and Technology, Raebareli during 19-23 June 2020.
  - **Participated in summer institute on Food Safety and Security held at Tel Aviv University, Tel-Aviv (Israel) during 30 June to 26 July 2019**
  - Participated in One Week Short Term Training Program on “**Advances in Separation Processes and Purification Techniques (ASPPT-2019)**” held at SLIET Longowal during June 3 - 7, 2019.
  - Participated in One Day Training Program on “**Beekeeping and Quality Evaluation of Honey**” held at SLIET Longowal on 19 November, 2018.
  - Participated in One Week Short Term Training Program on “**Waste Management Practices for Environmental Sustainability**” held at SLIET Longowal during 10–14 September, 2018.
  - Participated in One Week Short Term Training Program on “**Mathematical Modelling and Statistical Techniques (MMST-2018)**” held at SLIET Longowal during 30 July – 03 August, 2018.
  - Participated in the workshop on “**Quality Management in Grain Industry**” held at NIFTEM campus, Kundli (Haryana) India on March, 2016.
  - Internal Auditor Training in ISO 22000: 2005 conducted by the Safe Foodz Solutions.
  - Industrial training in **Sukhjit Agro Industries, Una (H.P.) India** during 15<sup>th</sup> January - 15<sup>th</sup> May, 2014
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#### **WORKSHOP AND TRAININGS ORGANIZED**

- Organized a workshop on “**Safe Handling of Laboratory Glassware and Basic Instruments**” as coordinator on 26/07/2024 with participation of 70 students (B. Tech. and 12th class PCM)

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## PUBLICATIONS

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### Patent

1. Published a Patent on topic entitled “*Technology to develop edible bowl from brewers' spent grains (BSG)*” with Application Number: 202321018855; Publication Date: 21/04/2023; Current status: *Application Awaiting Examination*

### Book(s)

1. “**Phytochemicals in Food and Health Perspectives for Research and Technological Development**” edited by Deepak Kumar Verma and Mamta Thakur. Pub Date: 2022. <https://www.appleacademicpress.com/phytochemicals-in-food-and-health-perspectives-for-research-and-technological-development-/9781771889360>; Hard ISBN: 9781771889360

### Research/Review Papers

1. Rana, S., Kapoor, S., Bala, M., Surasani, V.K.R., Agarwal, A., & **Thakur, M.** (2024) Optimization and Characterization of Tomato Seed Protein Isolate: A Sustainable Source of Functional Protein. *Biomass Conversion and Biorefinery*. Accepted. (IF: 3.5; NAAS rating: 10.00)
2. Chandran, A. S., Kashyap, P., & **Thakur, M.** (2024). Effect of extraction methods on functional properties of plant proteins: A review. *eFood*, 5(3), e151. <https://doi.org/10.1002/efd2.151> (IF- 4.6)
3. **Thakur, M.**, & Nanda, V. (2024). Effect of packaging materials and storage conditions on physico-chemical, phytochemical and microstructural properties of bee pollen enriched milk powder. *Food Chemistry Advances*, 100567. <https://doi.org/10.1016/j.focha.2023.100567>
4. Kashyap P, **Thakur M**, Singh, N., Shikha D, Kumar, S, Baniwal, P., Yadav YS, Sharma M, Sridhar, K and Inbaraj, BS. (2022) In Silico Evaluation of Natural Flavonoids as a Potential Inhibitor of Coronavirus Disease. *Molecules*. 27, 6374. <https://doi.org/10.3390/molecules2719637> (IF- 4.2, NAAS rating: 10.60)
5. **Thakur, M.**, & Nanda, V. (2022). Investigating the flow properties of bee pollen enriched milk powder during storage. *Journal of Stored Products Research*, 96, 101940. <https://doi.org/10.1016/j.jspr.2022.101940> (IF: 2.7; NAAS rating: 8.70)
6. Pant, K., **Thakur, M.**, Chopra, H. K., Dar, B. N., & Nanda, V. (2022). Assessment of fatty acids, amino acids, minerals, and thermal properties of bee propolis from Northern India using a multivariate approach. *Journal of Food Composition and Analysis*, 104624. DOI: 10.1016/j.jfca.2022.104624 (IF: 4.0; NAAS rating: 10.30)
7. Pant, K., **Thakur, M.**, Chopra, H. K., & Nanda, V. (2022). Encapsulated bee propolis powder: Drying process optimization and physicochemical characterization. *LWT-Food Science and Technology*, 155, 112956. (IF: 6; NAAS rating: 12.00)

8. Gupta, A. K., Gurjar, P. S., Beer, K., Pongener, A., Ravi, S. C., Singh, S., ... & Verma, D. K. (2022). A review on valorization of different byproducts of mango (*Mangifera indica* L.) for functional food and human health. *Food Bioscience*, 101783. <https://doi.org/10.1016/j.fbio.2022.101783> (IF: 4.8; NAAS rating: 11.20)
9. Verma, D. K., **Thakur, M.**, Singh, S., Tripathy, S., Gupta, A. K., Baranwal, D., ... & Srivastav, P. P. (2022). Bacteriocins as antimicrobial and preservative agents in food: Biosynthesis, separation and application. *Food Bioscience*, 101594. (IF: 4.8; NAAS rating: 11.20)
10. Banwo, K., Olojede, A. O., Adesulu-Dahunsi, A. T., Verma, D. K., **Thakur, M.**, Tripathy, S., ... & Utama, G. L. (2021). Functional importance of bioactive compounds of foods with Potential Health Benefits: A review on recent trends. *Food Bioscience*, 101320. (IF: 4.8; NAAS rating: 11.20)
11. Niamah, A. K., Al-Sahlany, S. T. G., Ibrahim, S. A., Verma, D. K., **Thakur, M.**, Singh, S., ... & Utama, G. L. (2021). Electro-hydrodynamic processing for encapsulation of probiotics: A review on recent trends, technological development, challenges and future prospect. *Food Bioscience*, 44, 101458. (IF: 4.8; NAAS rating: 11.32)
12. Verma, D. K., Al-Sahlany, S. T. G., Niamah, A. K., **Thakur, M.**, Shah, N., Singh, S., ... & Aguilar, C. N. (2021). Recent trends in microbial flavour Compounds: A review on Chemistry, synthesis mechanism and their application in food. *Saudi Journal of Biological Sciences*. <https://doi.org/10.1016/j.sjbs.2021.11.010> (IF: 4.4; NAAS rating: 10.40)
13. Singh, S., Verma, D. K., **Thakur, M.**, Tripathy, S., Patel, A. R., Shah, N., ... & Aguilar, C. N. (2021). Supercritical fluid extraction (SCFE) as green extraction technology for high-value metabolites of algae, its potential trends in food and human health. *Food Research International*, 150, 110746. <https://doi.org/10.1016/j.foodres.2021.110746> (IF: 7.0; NAAS rating: 14.10)
14. Tripathy, S., Verma, D. K., **Thakur, M.**, Patel, A. R., Srivastav, P. P., Singh, S., ... & Utama, G. L. Curcumin Extraction, Isolation, Quantification and Its Application in Functional Foods: A Review with a Focus on Immune Enhancement Activities and Covid-19. *Frontiers in Nutrition*, 675. DOI: 10.3389/fnut.2021.747956 (IF: 4.0; NAAS rating: 11.00)
15. Tripathy, S., Verma, D. K., **Thakur, M.**, Patel, A. R., Srivastav, P. P., Singh, S., ... & Aguilar, C. N. (2021). Encapsulated Food Products as a Strategy to Strengthen Immunity Against COVID-19. *Frontiers in Nutrition*, 8, 245. (IF: 4.0; NAAS rating: 11.00)
16. Kashyap, P., Shikha, D., **Thakur, M.**, & Aneja, A. (2021). Functionality of apigenin as a potent antioxidant with emphasis on bioavailability, metabolism, action mechanism and in vitro and in vivo studies: A review. *Journal of Food Biochemistry*, e13950. DOI: 10.1111/jfbc.13950 (IF:3.5; NAAS rating: 10.00)
17. Utama, GL., Dio, C., Sulistiyo, J., Chye, FY., Lembong, E., Cahyana, Y., Verma, DK., **Thakur, M.**, Patel, A., and Singh, S. (2021). Evaluating comparative  $\beta$ -glucan production aptitude of

*Saccharomyces cerevisiae*, *Aspergillus oryzae*, *Xanthomonas campestris* and *Bacillus natto*. *Saudi Journal of Biological Sciences*. 28(12): 6765-6773 <https://doi.org/10.1016/j.sjbs.2021.07.051> (IF: 4.4; NAAS rating: 10.40)

18. Pant, K., **Thakur, M.**, Chopra, H. K., Nanda, V., Usmani, S. and Ansari, M. (2021) Characterization and discrimination of Indian propolis based on physico-chemical, techno-functional, thermal and textural properties: A multivariate approach. *Journal of King Saud University – Science*. 33(4), 101405 <https://doi.org/10.1016/j.jksus.2021.101405> (IF: 3.7, NAAS rating-9.80)
19. Verma, D.K., Patel, A.R., **Thakur, M.**, Singh, S., Tripathy, S., Srivastav, P.P., Chavez-Gonzalez, M.L., Gupta, A.K., and Aguilar, C.N. (2021). A review of the composition and toxicology of fructans, and their applications in foods and health. *Journal of Food Composition and Analysis* 99 (2021) 103884 (IF: 4.0; NAAS rating: 10.30)
20. **Thakur, M.**, Majid, I., Hussain, S. and Nanda, V. (2021) Poly( $\epsilon$ -caprolactone): A Potential Polymer for Biodegradable Food Packaging Applications. *Packaging Technology and Science*. <https://doi.org/10.1002/pts.2572> (IF: 2.8; NAAS rating: 8.60)
21. Mahanti, N. K., Chakraborty, S. K., Sudhakar, A., Verma, D. K., Shankar, S., **Thakur, M.**, ... & Srivastav, P. P. (2021). Refractance window<sup>TM</sup>-drying vs. other drying methods and effect of different process parameters on quality of foods: A comprehensive review of trends and technological developments. *Future Foods*, 100024. <https://doi.org/10.1016/j.fufo.2021.100024> (IF: 7.2)
22. Martinez-Medina, G.A., Chávez-González, M.L., Verma, D.K., Prado-Barragán, L.A., Martínez-Hernández, J.L., Flores-Gallegos, A.C., **Thakur, M.**, Srivastav, P.P. and Aguilar, C.N. (2021). Bio-functional components in mushrooms, a health opportunity: Ergothionine and huitlacoche as recent trends. *Journal of Functional Foods*, 77, 104326. <https://doi.org/10.1016/j.jff.2020.104326> (IF: 3.8; NAAS rating: 11.60)
23. **Thakur, M.** and Nanda, V. (2021) Screening of Indian bee pollen based on antioxidant properties and polyphenolic composition using UHPLC-DAD-MS/MS: A multivariate analysis and ANN based approach. *Food Research International*. 140, 110041 <https://doi.org/10.1016/j.foodres.2020.110041> (IF: 7.0; NAAS rating: 14.10)
24. **Thakur, M.** and Nanda, V. (2020) Composition and functionality of bee pollen: A review. *Trends in Food Science and Technology*. 98, 82-106. DOI: 10.1016/j.tifs.2020.02.001 (IF: 15.1, NAAS rating: 20.00)
25. **Thakur, M.**, Pant, K., Naik, R.R., and Nanda, V. (2020) Optimization of spray drying operating conditions for production of functional milk powder encapsulating bee pollen. *Drying Technol.* 39(6):1-14 DOI: 10.1080/07373937.2020.1720225 (IF: 2.7, NAAS rating: 9.30)

26. Verma, D.K., **Thakur, M.**, and Srivastav P.P. (2020) Biochemistry and Molecular Aspects of 2-Acetyl-1-Pyrroline Biosynthesis in Rice (*Oryza sativa* L.): A Review. *Israel J Plant Sci*. DOI: 10.1163/22238980-bja10012 (**IF: 0.9; NAAS rating: 7.00**).
27. Verma, D.K., Niamahb, A.K., Patel, A.R., **Thakur, M.**, Sandhu, K.S., Chávez-González, M.L., Shah, N., and Aguilar, C.N. (2020) Chemistry and microbial sources of curdlan with potential applications in food and health. *Food Research International*. DOI: 10.1016/j.foodres.2020.109136 (**IF: 7.0; NAAS rating: 14.10**)
28. Naik, R.R., Neha, S.G, **Thakur, M.**, and Nanda, V. (2019) Analysis of crystallization phenomenon in Indian honey using molecular dynamics simulations and artificial neural network. *Food Chemistry* 125182. DOI: 10.1016/j.foodchem.2019.125182 (**IF: 8.5, NAAS rating: 14.80**)
29. **Thakur, M.** and Nanda, V. (2019) Process optimization of polyphenol-rich milk powder using bee pollen based on physico-chemical and functional characteristics. *Journal of Food Process Engineering*. 42(6):e13148 DOI: 10.1111/jfpe.13148 (**IF: 2.7, NAAS rating: 9.00**)
30. **Thakur, M.** and Nanda, V. (2020) Exploring the physical, functional, thermal, and textural properties of bee pollen from different botanical origins of India. *Journal of Food Process Engineering*. 43(1):e12935 DOI: 10.1111/jfpe.12935 (**IF: 2.7, NAAS rating: 9.00**)
31. **Thakur, M.** and Nanda, V. (2018) Assessment of physicochemical properties, fatty acid, amino acid and mineral profile of bee pollen from India with a multivariate perspective. *J. Food Nutr. Res.* 57(4): 328–340 (**IF: 0.6**)

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### Popular Article

1. Dave, M., **Thakur, M.**, and Kumar, D. (2024) Aliv Seeds: A Promising Superfood with Distinct Food Applications and Health Benefits. *Krishi Netra*. 2(9): 15-20.
2. **Thakur M.**, Kumar, M., Kashyap, P., and Meena, D.S. (2024) GI tagging in honey: Preserving authenticity and promoting quality. *Indian Food Industry Mag*, 6(2), 27-38.
3. Choudhary, T., **Thakur, M.**, and Kumar, D. (2024) Potential of Kachri: Nutritional & therapeutic insights. *Ingredients South Asia*, 17(16), Page 29.
4. **Thakur M.** (2018) Fermented foods was the number one trend in 2018. *Food and Beverage News*. 11(3): 31,40.
5. **Thakur M.** (2018) Spirulina with nutrient content – the food for future. *Ingredients South Asia*. 12(4): 42-43.
6. **Thakur M.** (2018) Shift towards healthier beverages in Southeast Asia. *Food and Beverage News*. 10(19): 19-21.
7. **Thakur M.** (2018) Trends and innovations in Indian snacks market. *Food and Beverage News*. 10(18): 35-36.

8. **Thakur M.** (2018) Innovations and opportunities for RTE food market. *Food and Beverage News*. 10(17): 15-16
9. **Thakur M.** (2018) Trends in Nutraceuticals in European market. *Ingredients South Asia*. 11(19): 51-52.
10. **Mamta Thakur** and Vikas Nanda (2018) Potential of bioactive components in healthcare: A novel trend in food sector. *Indian Food Industry Mag (AFSTI)*. 37(2): 8-18.
11. **Thakur M.** and Sudha Rana (2018) Opportunities – Ingredients market in Japan. *Ingredients South Asia*. 11(18): 60-61.
12. **Thakur M.** (2018) Development of modern infrastructure to boost growth. *Food and Beverage News*. 10(12): 15-16.
13. **Thakur M.** (2018) Ingredients market scenario in China. *Ingredients South Asia*. 11(17): 67-68.
14. **Thakur M.** (2018) Food value chain poised to create multiple opportunities. *Food and Beverage News*. 10(11): 23-24
15. **Thakur M.** (2018) Flavour and fragrance likely to grow at 12-15%. *Ingredients South Asia*. 11(12): 60,62
16. **Thakur M.** (2018) Outlook for African Food ingredients market. *Ingredients South Asia*. 11(10): 48-49
17. **Thakur M.** (2018) Packaging solutions for food and beverage – New vistas. *Food and Beverage News*. 10(6): 23-24.
18. **Thakur M.** and Sudha Rana (2018) Processed foods escalate need for additives. *Ingredients South Asia*. 11(7): 20-21, 30.
19. **Thakur M.** (2017) Youth driving Saudi tea and coffee market. *Ingredients South Asia*. 10(25): 38-39.
20. **Thakur M.** (2017) Recent trends and innovation in convenience foods. *Food and Beverage News*. 9(20): 23-24, 37.
21. **Thakur M.,** Majid I. and Sharma R. K. (2017) Novel and emerging technologies enhancing the shelf life of foods. *Food and Beverage News*. 9(17): 11-12.
22. **Thakur M.** and Majid I. (2017) Recent and Emerging trends in Indian chocolate market. *Food and Beverage News*. 9(11): 15-16, 18, 20.
23. **Thakur M.** and Sharma R. K. (2016) Bitter Gourd: Health Properties and Value Addition at Farm Scale. *Marumegh- The Kisan e-Patrika*. 1(2): 17-21

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## Book Chapters

1. Batta, K., **Thakur, M.,** & Meghwal, M. (2024). Vitamins production from probiotic bacteria. In Ashraf, S.A., & Kuddus, M. *Microbial Vitamins and Carotenoids in Food Biotechnology*, **Academic Press**, pp. 149-177



2. Kashyap, P., **Thakur, M.**, Kalsi, R., Sridhar, K., Sharma, M., Kumar, S., & Inbaraj, B. S. (2024) Molecular Aspects on Anti-SARS-CoV-2 Activity of Flavonols: Inhibitory on Protein Targets, Immunomodulatory, and Anti-Inflammatory Effects. In Chen, J.T. Anti-SARS-CoV-2 Activity of Flavonoids. **CRC Press**. pp. 41-54
3. Niamah, A. K., Al-Sahlany, S. T. G., Verma, D. K., Singh, S., Tripathy, S., **Thakur, M.**, ... & Srivastav, P. P. (2024). Enzymes for meat and meat processing industry: current trends, technological development, and future prospects. In González, MLC., Figueroa, JJB., Verma, DK., and Aguilar, C. N. Enzymatic Processes for Food Valorization, Academic Press. pp. 23-36
4. Bautista-Hernández, I., Luna-Sánchez, K., Aguilar, C. N., Verma, D. K., González, M. L. C., **Thakur, M.**, ... & Srivastav, P. P. (2024). Enzymes from a technological standpoint and their application in seafood processing. In González, MLC., Figueroa, JJB., Verma, DK., and Aguilar, C. N. Enzymatic Processes for Food Valorization. Academic Press. pp. 85-97
5. **Thakur, M.**, & Rana, S. (2023). Barley Sprouts. In Majid, I., Kehinde, B.A., Dar, B., & Nanda, V. Advances in Plant Sprouts: Phytochemistry and Biofunctionalities, Cham: **Springer International Publishing**. pp. 29-55
6. Pratik Nayi, **Mamta Thakur**, Vikas Nanda (2023) Germination of Cereals: Effect on Nutritive, Functional, and Biological Properties. In Rajan Sharma, Basharat Nabi Dar, Savita Sharma. Cereal Processing Technologies Impact on Nutritional, Functional, and Biological Properties. CRC Press, Boca Raton. ISBN 9781003242192
7. **Mamta Thakur** and Vikas Nanda. (2023) Storage stability and quality management of nutri-cereals and associated products. In: Rajan Sharma, Vikas Nanda, Savita Sharma. Nutri-Cereals: Nutraceutical and Techno-Functional Potential. CRC Press, Boca Raton. Pp: ISBN 9781003251279
8. **Thakur, M.**, Deepak Kumar Verma, Sudhanshi Billoria, H. W. Deshpande, Ami R. Patel and Geetanjali Kaushik. (2023) Probiotics in Fruits and Vegetables: Challenges, Legislation Issue and Potential Health Benefits. In: Deepak Kumar Verma, Ami R Patel, Sudhanshi Billoria, Geetanjali Kaushik and Maninder Kaur. Microbial Biotechnology in Food Processing and Health: Advances, Challenges and Potential. Pp. 81-128. Apple Academic Press. ISBN 9781774637289
9. Pant, K., **Thakur, M.**, & Nanda, V. (2021). Applications of Cold Plasma Technology in Grain Processing. In M. Selvamuthukumar (Ed.), Non-Thermal Processing Technologies for the Grain Industry. Pp. 95—120 CRC Press.
10. Niamah, A. K., Al-Sahlany, S. T. G., Verma, D. K., **Thakur, M.**, MOHAPATRA, B., SINGH, S., ... & BANWO, K. (2022) Trends, Analytical Approaches, and Applications of the VITEK System for Identification and Classification of Bacteria and Yeasts. In L.S. Torre, Aguilar, C.N., Kannan, P, Haghi, A. K. (Ed.) Quantitative Methods and Analytical Techniques in Food Microbiology, Apple Academic Press, Pub Date: July 2022 ISBN: 9781774637265
11. Smita Singh, Deepak Kumar Verma, **Mamta Thakur**, Kirubanandan Shanmugam, Sankhadip Bose, Mónica L. Chávez-González, and Cristobal Noe Aguilar. (2020) Sorghum Phytochemicals: Extraction,

Processing, Applications, and Health Benefits. In: Deepak Kumar Verma and Mamta Thakur Phytochemicals in Food and Health Perspectives for Research and Technological Development. In press. **Apple Academic Press, USA.**

12. Deepak Kumar Verma, **Mamta Thakur**, Smita Singh, Kawaljit Singh Sandhu, Maninder Kaur, and Prem Prakash Srivastav. (2021) The Emphasis of Effect of Cooking and Processing Methods on Anti-Nutritional Phytochemical of Legumes and Their Significance in Human Health. In: Deepak Kumar Verma and Mamta Thakur. Phytochemicals in Food and Health Perspectives for Research and Technological Development. In press. **Apple Academic Press, USA.**
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23. Vikas Nanda, Ishrat Majid and **Mamta Thakur**. (2019) Spray drying of acid and sugar rich foods. In: M.Selvamuthukumar. Handbook on Spray Drying for food processing industries. **CRC press and Taylor & Francis Group**, Boca Raton, FL, pp. 31-68
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1. **Mamta Thakur** and Vikas Nanda (2020) Botanical discrimination of Indian bee pollen based on physico-functional, thermal degradation and textural properties: A multivariate approach in 23rd Punjab Science Congress organized by Punjab Academy of Sciences at SLIET Longowal during 7-9<sup>th</sup> Feb 2020.
2. **Mamta Thakur** and Vikas Nanda (2020) Valorization of bee pollen by developing functional milk powder: Spray drying conditions and characterization in 27th Indian Convention of Food Scientist and Technologists (ICFOST) held at Tezpur University, Tezpur (Assam) India during 30-31 Jan and 1 Feb 2020.
3. **Mamta Thakur** and Vikas Nanda (2019) Characterization of Indian bee pollen in 46<sup>th</sup> APIMONDIA-International Apicultural Congress – Beekeeping together within Agriculture organized by Canadian at Montreal, Canada during 8-12 September 2019.
4. **Mamta Thakur**, Pant Kirty, Naik Rishi and Vikas Nanda (2019) Characterization of Vacuum and Spray-dried bee pollen-rich milk powder: A comparative study in National Conference on New Horizons in Food Processing, Technology and Nutrition under SLIETCON – 2019: A Multi-track National Conference organized by SLIET Longowal and held at NITTTR Chandigarh during 1-2 March, 2019.
5. **Mamta Thakur** and Vikas Nanda (2018) Investigating the potential of Indian bee pollen as a functional food: A comprehensive approach in 8<sup>th</sup> International Food Convention (IFCON-18) held at CSIR-CFTRI, Mysuru (India) and organized by Association of Food Scientists and Technologists India (AFSTI) during 12-15 December 2018.
6. **Mamta Thakur** and Vikas Nanda (2018) Palynological origin and chemical Composition of bee pollen in India in National conference on Emerging and sustainable technologies in food processing (ESTFP-2018) held at SLIET Longowal (Punjab) India during 15-16 March 2018.
7. **Mamta Thakur** and Vikas Nanda (2018) Physicochemical characterization of bee pollen from different botanical origins of India in International Conference on Bio and nano technologies for sustainable agriculture, food, health, energy and industry (ICBN-2018) held at GJUST, Hisar (Haryana) India during 21-23 Feb 2018.
8. **Mamta Thakur**, H. W. Deshpande and Vikas Nanda (2018) Non-dairy probiotic products: Potential and Challenges in International Conference on Bio and nano technologies for sustainable agriculture, food, health, energy and industry (ICBN-2018) held at GJUST, Hisar (Haryana) India during 21-23 Feb 2018.
9. **Mamta Thakur** and Vikas Nanda (2018) Studies on Physical properties and Proximate Composition of Bee Pollen from Indian Origin in 3<sup>rd</sup> International Conference on Food Properties (iCFP2018) held at Sheraton Sharjah Resort and Spa, Sharjah, UAE (22-24 Jan, 2018).
10. **Mamta Thakur** (2018) Bioactive components and functional foods: Novel approach towards disease management in 1<sup>st</sup> Farm Innovation Congress, 2018 and National conference on Innovative farming for food and livelihood security in changing climate held at BCKV, Kalyani (West Bengal) during 12-13<sup>th</sup> January, 2018

11. **Mamta Thakur**, Ishrat Majid, R. K. Sharma, Vikas Nanda and H. W. Deshpande. Viability and physico-chemical attributes of probiotic pomegranate beverage through storage time” in the National Conference on Food Processing India 2017 at GJUST, Hisar (Haryana) India during 3-4<sup>th</sup> March, 2017
12. Ishrat Majid, **Mamta Thakur** and Vikas Nanda. Comparative study of antioxidant activity, total phenol and flavonoid content of raw and sprouted onion, garlic and ginger in the National Conference on Food Processing India 2017 at GJUST, Hisar (Haryana) India during 3-4<sup>th</sup> March, 2017
13. **Mamta Thakur**, R. K. Sharma, H. W. Deshpande and P. N. Satwadhar. Study of microbial and chemical characteristics of probiotic pomegranate (*Punica granatum* L.) beverage during different storage conditions in Indian Convention of Food Scientist and Technologists (ICFOST)-XXV (2016) held at GNDU Amritsar, India.
14. **Mamta Thakur**. Study on Food Supply Chain of Bakery Industry: A Case Study in International Conference on Food Value Chain: Innovations and Challenges (FVC-2016) held at NIFTEM campus, Kundli (Haryana) India.
15. **Mamta Thakur**. Value Addition of Bitter Gourd by Preparing Sugar Free Concentrated Health Drink Blended with Lemon Juice in Indian Convention of Food Scientist and Technologists (ICFOST)-XXIV (2015) held at College of Food Technology, VNMKV, Parbhani (Maharashtra) India.
16. **Mamta Thakur**. Emerging Trends in Food Quality and Safety in National Seminar on “Emerging Trends in Food Quality and Safety” (2015) held at AAU, Anand, India.

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#### MEMBER OF PROFESSIONAL BODIES

- **Life member** of Association of Food Scientists and Technologists (India), AFST(I) with its headquarter at CSIR-CFTRI, Mysuru (Karnataka) India (Reg. No.: AFST1572 and membership No: 8/R267/17/LONG)

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#### EXTRA-CURRICULAR ACTIVITIES

1. Assigned as **Planery/Oral Presentation Committee Member** in 23<sup>rd</sup> Punjab Science Congress to be held at SLIET Longowal during 7-9 Feb, 2020.
2. **MASTER OF CEREMONY** in SLIETCON-2019: A Multi-track National Conference organized by SLIET Longowal and held at NITTTR Chandigarh during 1-2 March, 2019.
3. Worked as **Oral Presentation Committee Member** in SLIETCON-2019: A Multi-track National Conference organized by SLIET Longowal and held at NITTTR Chandigarh during 1-2 March, 2019.
4. Participated in the **XIV All India Inter Agricultural University sports and Games Meet in the game of Volleyball** held at Karnataka Veterinary Animal and Fisheries University, Bidar during 6-10 March 2013.

5. Participated in the **North-zone Inter University Badminton Tournament** at Punjab Technical University, Jalandhar during 2-6 Nov 2011.
6. Runner up in **Inter College Tournament** in the game of Volleyball held at CSKHPKV, Palampur (H.P.) during the academic year 2013-2014.
7. Runner up in **Inter College Tournament** in the game of Badminton held at CSKHPKV, Palampur (H.P.) during the academic year 2013-2014.

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**LANGUAGES**

- English and Hindi
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Regards



**Dated:** 05 Oct, 2024

**(Dr. Mamta Thakur)**