



Ajeenkya D Y Patil University

D Y Patil Knowledge City, Charholi Bk. Via Lohegaon, Pune – 412 105 (MH) INDIA

FACULTY PROFILE



NAME: PRASANNA PRAKASH BHALERAO

DESIGNATION: ASSISTANT PROFESSOR

E-MAIL: prasanna.bhalerao@adypu.edu.in

QUALIFICATION: Ph.D Food Engineering & Technology

BIOGRAPHY

With over five years of dedicated teaching experience in Food Technology, Prof. Prasanna P. Bhalerao has contributed significantly to academic institutions affiliated with Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri, and D. Y. Patil Deemed to be University, Navi Mumbai. His expertise lies in the design and execution of thermal and non-thermal food processing and preservation experiments.

Prof. Bhalerao is adept in comprehensive process design, including the formulation of food products and their components, integrating sensory evaluation and rational experimental methodologies. His competencies also include process optimization and precise process time calculation through kinetic modeling. He is well-versed in assessing a wide range of quality parameters—physical, chemical, and microbiological—ensuring a holistic approach to food processing.

In addition to his academic contributions, Prof. Bhalerao serves as an expert with the Export Inspection Agency (EIA), Government of India (GOI), where he participates in Industry Development Program (IDP) assessments of food industries, further bridging academia and industry with practical insights.

Students Project Guided: B. Tech/M. Tech/PhD: 03

CORE COMPETENCY AREAS

Thermal and Non-Thermal Processing, Sensory Analysis, Fuzzy Logic, Kinetic Modelling

PUBLICATIONS:

- ✍ Madhav, C. D., Bhalerao, P. P., Dabade, A., Hundare, S., Bhushette, P., Deshmukh, S. D., & Sonawane, S. K. (2025). Development and characterization of jackfruit-based vegan patties: A D-optimal mixture design approach. *Journal of Food Measurement and Characterization*, 1-19. <https://doi.org/10.1007/s11694-025-03247-0>
- ✍ Kakade, S., Sonawane, S., Bhalerao, P., & Dabade, A. (2024). Effect of hydrocavitation treatment on physicochemical and functional properties of soy protein isolate. *Measurement: Food*, 14, 100164. <https://doi.org/10.1016/j.meafoo.2024.100164>
- ✍ Deshmukh, P., Patil, D., Bhalerao, P. P., Dabade, A., & Sonawane, S. K. (2024). Optimization & characterization of chips developed from cabbage powder, maize and rice flour using simplex lattice mixture design. *Food Chemistry Advances*, 5, 100787. <https://doi.org/10.1016/j.focha.2024.100787>
- ✍ Singh, D., Sonawane, S., Bhalerao, P., & Dabade, A. (2024). Effect of Hydrocavitation Treatment on Physicochemical and Functional Properties of Chickpea Flour. *Food Biophysics*, 1-10. <https://doi.org/10.1007/s11483-024-09851-9>
- ✍ Mahulkar, K. C., Patil, A., Bhalerao, P. P., Dabade, A., Hundare, S., Bhushette, P., & Sonawane, S. K. (2024). Optimization of formulation millets flours for waffle ice cream cone using simplex lattice design: Characterization and shelf life study. *Food Chemistry Advances*, 4, 100600. <https://doi.org/10.1016/j.focha.2023.100600>
- ✍ Patil, C., Sonawane, S., Bhalerao, P., & Dabade, A. (2023). The effect of non-thermal hydrodynamic cavitation process on structural and function properties of casein protein. *Journal of Agriculture and Food Research*, 100899. <https://doi.org/10.1016/j.jafr.2023.100899>
- ✍ Patil, S., Urankar, D., Bhalerao, P. P., Dabade, A., Bhushette, P., & Sonawane, S. K. (2023). Development of Plant-based Fish Analog: Optimization using D-Optimal Mixture Design and Fuzzy Analysis, Characterization and Shelf Life Study. *Food Chemistry Advances*, 100485. <https://doi.org/10.1016/j.focha.2023.100485>
- ✍ Upadhyaya, A. Bhalerao, P. P., Bhushette, P., Dabade, A. & Sonawane, S. K. (2023). Optimization study of palm jaggery and palm candy-Production and Process. *Applied Food Research*, e13761. <https://doi.org/10.1016/j.afres.2023.100269>
- ✍ Bhalerao, P. P. & Chakraborty, S. (2021). Integrated calculation of pasteurization time: A case study for thermal inactivation kinetics of a mixed fruit beverage. *Journal of Food Process Engineering*, e13761. <https://doi.org/10.1111/jfpe.13761>
- ✍ Bhalerao, P., Dhar, R., & Chakraborty, S. (2021). 5 Pulsed Light Technology. *Food Processing: Advances in Non-Thermal Technologies*, 91. <https://doi.org/10.1201/9781003163251>
- ✍ Dhar, R., Bhalerao, P. P., & Chakraborty, S. (2021). Formulation of a mixed fruit beverage using fuzzy logic optimization of sensory data and designing its batch thermal pasteurization process. *Journal of Food Science*, 86(2), 463-474. <https://doi.org/10.1111/1750-3841.15583>
- ✍ Muley, A. B., Awasthi, S., Bhalerao, P. P., Jadhav, N. L., & Singhal, R. S. (2021). Preparation of cross-linked enzyme aggregates of lipase from *Aspergillus niger*: process optimization, characterization, stability, and application for epoxidation of lemongrass oil. *Bioprocess and Biosystems Engineering*, 1-22. <https://doi.org/10.1007/s00449-021-02509-7>
- ✍ Chakraborty, S*, Ghag, S., Bhalerao, P. P., & Gokhale, J. S (2020). The Potential of Pulsed Light Treatment to Produce Enzymatically Stable Indian Gooseberry (*Emblica officinalis* Gaertn.) Juice with Maximal Retention in Total Phenolics and Vitamin C. *Journal of Food Processing and Preservation*, e14932. <https://doi.org/10.1111/jfpp.14932>
- ✍ Bhalerao P.P., Mahale S.M., Dhar R., & Chakraborty S* (2020). Optimizing the formulation for a pomegranate-amla-muskmelon based mixed fruit beverage using sensory analysis and evaluating its thermal stability. *LWT-Food Science and Technology*, 133, 109907. <http://dx.doi.org/10.12944/CRNFSJ.6.1.19>
- ✍ Vollmer K., Chakraborty S., Bhalerao P.P., Carle R., Frank J., & Steingass C.B* (2020) Effect of Pulse Light Treatment on Natural microbiota, Enzyme activity, and Phytochemical composition of Pineapple (*Ananas comosus* [L.] Merr) Juice. *Food and Bioprocess Technology*. <https://doi.org/10.1007/s11947-020-02460-7>
- ✍ Kudake, D. C., Bhalerao, P. P., Chaudhari, N., Muley, A. B., Parate, V. R., & Talib, M. I. (2018). Fortification of Wheat Flour with Ragi Flour: Effect on Physical, Nutritional, Antioxidant and Sensory Profile of Noodles. *Current Research in Nutrition and Food Science*, 6(1), 165-173. <http://dx.doi.org/10.12944/CRNFSJ.6.1.19>
- ✍ Bhalerao P. P., Waghmare M. D, Parate V. R, Talib M. I (2017), 'Development and Storage study of Mango-Papaya Fruit Bar', *International Journal of Food and Nutritional Science*, 6(4), 21.

ACHIEVEMENTS/AWARDS/RECOGNITIONS:

- 🎤 **Radio Talk:** Use of Irradiation Technology for preservation of food stuffs. Broadcasted from Akashwani, Ahmednagar Station, on 5th February, 2016.
- 🎤 **Radio Talk:** Mango Processing. Broadcasted from Akashwani, Nashik Station, on 28th April, 2017.
- 🎤 Serving as academic expert for conducting Industry Development Program (IDP) assessments of food industries in association with Export Inspection Agency (EIA), Government of India (GOI).

SEMINARS / WORKSHOPS / CONFERENCES ATTENDED:

🏛️ **CONFERENCES AND SEMINARS (International: 02)**

- 🏛️ **Bhalerao P. P., Dhar R., Mahale S.M., & Chakraborty S*** (2018). Effect of Pulsed Light Treatment on Enzyme activity, Natural Microbiota and Biochemical Quality Attributes of Mixed Fruit Beverage. Presented in International Food Convention (IFCON) at CFTRI, Mysore, India (12-15 December, 2018).
- 🏛️ **Bhalerao P. P. & Chakraborty S*** (2018). Pomegranate-Muskmelon Mixed Fruit Beverage: Formulation and Kinetic Modeling. Presented in Uprising Drift in the Path of Food Biotechnology and Fermentation Technology at ICT, Mumbai, India (26 December, 2018).
- 🏛️ **Bhalerao P. P. & Chakraborty S*** (2018). Effect of Pulsed Light Treatment on Quality Attributes of Pomegranate-Amla-Muskmelon Based Mixed Fruit Beverage. Presented in International conference on Technological Innovation's Integration of Food and Health (TIIFH) at Tezpur University, Assam, India (14-16 February, 2019).

🏛️ **FDPs**

1. Sales force administrator, conducted by ICT academy from 6 Nov 2023 to 10 Nov 2023
2. *Emerging Technologies in Postharvest Management and Value Addition in Horticultural Commodities at National Institute of Food Technology Entrepreneurship and Management from 03/02/2025 to 08/02/2025.*
3. *Integrating AgroTech with Modern Food Preservation Strategies at National Institute of Technology, Tiruchirappalli from 10/02/2025 to 15/02/2025*

PROFESSIONAL BODY MEMBERSHIP

ASSOCIATION OF FOOD SCIENTISTS & TECHNOLOGISTS (AFSTI)
