

## Curricular Vitae

**Dr. Shweta Yadav**

**Assistant Professor**

**Department of Food Process Engineering**

**College of Post Harvest Technology and Food Processing**

**Sardar Vallabhbhai Patel University of Agriculture and Technology**

**Modipuram, Meerut-250110, Uttar Pradesh, India.**

**Phone: +91-9040544889, email: [shweta.v1993@gmail.com](mailto:shweta.v1993@gmail.com), [shwetayadav@svpuat.edu.in](mailto:shwetayadav@svpuat.edu.in)**



### **Research Interest**

Thermal and non-thermal processing of foods, Starch modification using thermal and non-thermal technology, Extraction and utilization of bioactive compounds from food matrices, Probiotic fermentation of food matrices, Process modeling and optimization

### **Academic details**

- July 2018- **PhD** in Food Process Engineering - **National Institute of Technology (NIT), Rourkela, India.**  
April 2023  
**Topic:** “Development of probiotic finger millet (*Eleusine coracana*) milk powder”  
**Research Advisor:** Dr. Sabyasachi Mishra (Ph.D., U of S, Canada).  
Department of Food Process Engineering, National Institute of Technology (NIT), Rourkela, Odisha - 769008, India.
- July 2016- **MTech.** in Processing and Food Engineering- **Odisha University of Agriculture and Technology, Bhubaneswar, Odisha-751003, India**  
June 2018  
**Topic:** Enhancement of shelf life of sugarcane juice by ozone treatment  
**Research Advisor:** Dr. Manoj Kumar Panda
- July 2011- **B.Tech.** in Agricultural Engineering- **Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh-492006, India**  
May 2015  
**Topic:** Development of diversified bakery products from minor millets  
**Research Advisor:** Mrs. Sharmila Maitra
- June 2011 **Intermediate (12<sup>th</sup> Standard)** in science group (Physics, Chemistry Mathematics, Hindi, and English)- Aditya Birla Intermediate College, Renusagar, Sonbhadra, Uttar Pradesh

June 2009      **Highschool (10<sup>th</sup> Standard)** in science group (Hindi, English, Mathematics, Science, Social science, and Commerce)- Aditya Birla Intermediate College, Renuagar, Sonbhadra, Uttar Pradesh

### Skills/ techniques

- **Equipment:** Q10 sonica Ultrasonicator, Brookfield texture profile analyser, Spray dryer, Biobase Freeze-dryer, DV2T Brookfield viscometer, UV-Vis Systronics spectrophotometer, Simadzu high-pressure liquid chromatography, DSC 822 differential scanning calorimetry, Countess automatic cell counter, continuous microwave, temperature data logger, Shimadzu atomic absorption spectroscopy.
- **Statistical analysis tools:** MATLAB, SPSS, Design expert

### Teaching Experience

- **Assistant Professor** (Contract basis) at **National Institute of Food Technology Entrepreneurship and Management-Kundli** (NIFTEM-K), Sonipat, Haryana from February 2023 to October 2024 (1 yr and 8 months)

### Courses Handled

The following courses for both UG and PG students were handled:

- Food Engineering-I (ENG-212)
- Food Engineering-II (ENG-222)
- Food Packaging Technology (ENG-322)
- Engineering Properties of Food Materials (UGS-2103)
- Engineering Properties of Food and Biomaterials (ENG-511)
- Advances in Food Engineering-I (ENG-512)
- Advances in Food Engineering-II (ENG-521)
- Fruits and Vegetables Process Engineering (ENG-559)

### Journal Publications

- **Yadav, S., Mishra, S., & Pradhan, R. C.** (2021). Ultrasound-assisted hydration of finger millet (*Eleusine Coracana*) and its effects on starch isolates and antinutrients. *Ultrasonics Sonochemistry*, 73, 105542. SCI Journal.
- **Yadav, S., Mishra, S., & Pradhan, R. C.** (2023). Effect of fermentation with *Lactobacillus plantarum* (MCC 2974) on quality characteristics and in-vitro digestibility of finger millet milk. *ACS Food Science and Technology*. 4 (1). 152-160. SCI Journal.

- **Yadav, S.** and Mishra, S. (2024). Optimization of spray-drying process for the microencapsulation of *L. Plantarum* (MCC 2974) in ultrasound-hydrated finger millet milk. *Food Science and Biotechnology*. 33, 2777-2788. SCI Journal.
- **Yadav, S.** & Mishra, S. (2023). Moisture sorption isotherms and storage study of spray-dried probiotic finger millet milk powder. *Journal of Stored Products Research*, 102, 102128. SCI Journal
- **Yadav, S.** and Mishra, S. (2023). Modelling and optimization of spray drying process parameters using artificial neural network (ANN) and genetic algorithm (GA) for the production of probiotic (*Lactiplantibacillus plantarum*) finger millet milk powder. *Journal of Food Process Engineering*. 47 (1). e14505. SCI Journal
- Mishra, S., **Yadav S.**, Vivek K., and Mishra S. (2024). Ultrasound-assisted isolation, quality characterization of finger millet (*Eleusine coracana*) starch, and comparison with conventional isolation methods, *Journal of Food Science and Technology*. Accepted. SCI Journal.
- **Yadav S.**, Mishra, S., Vivek K., and Mishra S. (2024). Characterization of finger millet (*Eleusine Coracana*) starch isolated by conventional and ultrasound-assisted starch isolation methods, *International Journal of Food Science and Technology*. 59 (8), 5710-5720, SCI Journal.

### Magazine Publications

- **Yadav, S.** and Singh, A. (2024), Future of freeze-drying technology for fruits and vegetable processing: An Indian scenario. *Indian Food Industry Mag.* Vol (6) No. 2, Mar-Apr 2024.

### Leadership/Responsibilities

- “**Active member** of student organizing committee” in **National Conference** on Advances in Food Processing for Sustainable Food Security (NIT Rourkela) on April 2019
- **Project Leader**, Bachelors Thesis Work, Indira Gandhi Krishi Vishwavidyalaya, Raipur, Chhattisgarh, 2015
- **Chaired** a technical session as co-chairperson at **SERB funded High-end Karyashala** on “Hands-on training on processing and application of edible oils from unconventional sources and their shelf-life enhancement using Innovative Technologies” held at **NIFTEM-K**, Haryana during 3<sup>rd</sup> to 8<sup>th</sup> July, 2023.
- **Faculty Coordinator** of **Nutrition Quiz Competition** during Nutrition Month-September 2024 organized by Department of Food Engineering and Department of Food Science and Technology at **NIFTEM-K**.
- **Team leader** of poster and product presentation at **Millet Mahotsav** held on 13/12/2024 at **IIMT University, Ganga Nagar, Meerut**.

### Awards and achievements

- Awarded University Gold Medal for outstanding performance in academics in the discipline of B. Tech (Agricultural Engineering) in September 2016.
- Qualified ICAR-JRF in the discipline of Agricultural Engineering in the years 2015 and 2016.
- Qualified ICAR-NET in the discipline of Agriculture Structures and Process Engineering in the year 2018.
- Uttar Pradesh Post matric outside state scholarship during 2011-2015.
- **National Talent Scholarship** by ICAR during post-graduation during 2016-2018.
- **National Institute Fellowship** by University Grants Commission, Ministry of Education, GOI during PhD program during 2018-2023.
- **Invited** as a **speaker** in a technical session on Statistical approaches for process parameters optimization in the fortification of bakery products in the workshop entitled "**Hands-on Training on Innovations in Bakery Technology**" organized by the **Department of FST and FE, NIFTEM-K** from 05.09.2023 to 09.09.2023
- **Achieved a certificate of appreciation** for the contribution as **Rapporteur** of a technical session in an **International conference (ICMANES-2023)** organized at **NIFTEM-K from 21-23 September, 2023.**

### Technical Trainings

- June 2013- Undergone an industrial training on solvent extraction of plant and vegetable oil at Sita Refinery Pvt. Ltd., Durg, Chhattisgarh
- July 2013
- June 2014- Undergone a technical training at Arun Agriculture Pvt. Ltd., Pulgaon, Durg, Chhattisgarh
- July 2014
- Jan 2015- Undergone a training programme on manufacturing & operation of crop production & processing equipment/technologies and water management technologies at Central Institute of Agricultural Engineering, Bhopal, Madhya Pradesh
- April 2015
- April 2015- Undergone one-week KVK Attachment program under In-plant training
- April 2015- Undergone industry attachment programme at Raja Ram Maize products, Rajnandgaon, Chhattisgarh
- May 2015
- May 2017- **Project Intern**
- June 2017 ICAR-Central Institute of Post-harvest Engineering and Technology, Ludhiana, Punjab
- Project Supervisor:** Ms. Surya Tushir
- Project Title:** Enzymatic hydrolysis of steam exploded corn residue after NaOH pre-treatment

### Conferences attended

- Participated in the National Symposium on “Food and Nutrition Security” organised by Department of Food Technology, Institute of Engineering and Technology, Bundelkhand University, Jhansi sponsored by TEQIP-3, MHRD, GOI in the year 2018.
- Participated in the National Conference on “Advances in Food Processing for Sustainable Food Security organized by NIT, Rourkela on April 2019
- Participated in an Indo-UK workshop on “Valorisation of agri-waste for energy and nutrient recovery” organized by the Department of Mechanical Engineering, IIT (BHU), Varanasi in Jan 2020.
- Presented a poster at the international conference entitled “Key Enabling Technologies in Sustainable Agri-food Chain” organized by the National Institute of Technology, Rourkela in December 2022.

### **Extra-curricular Activities**

- Participated in Kho-kho sport organized by the Chhattisgarh College of Agricultural Engineering, Bhilai, Chhattisgarh.
- Participated in Quiz competition of CL Young India Challenge organized at College of Agriculture Engineering and Technology, OUAT, Bhubaneswar, Odisha, India.
- Participated in online Quiz competition of Goodness of Millets organized by NCERT, Ministry of Education, GOI in the year 2022.

### **Membership in professional organization**

- Life member of the Association of Food Scientists & Technologists, India (AFSTI).

### **Languages known**

- Hindi, English

### **References**

1. **Dr. Sabyasachi Mishra**, PhD (U of Sask., Canada)  
Professor  
Department of Food Process Engineering,

National Institute of Technology, Rourkela, Odisha, India, 769008

Phone: +91-8763342802 (Mobile), +91-661-2462905 (Office),

Email ID: [mishrasa@nitrkl.ac.in](mailto:mishrasa@nitrkl.ac.in)

**2. Dr. Manoj Panda, PhD**

Professor

Department of Agriculture Processing and Food Engineering, CAET

Odisha University of Agriculture and Technology, Bhubaneswar, India, 751003

Phone: +91-7008056721

Email ID: manoj.ouat@gmail.com

**Dr. Shweta Yadav**

(December 2024)