

PRATIK PANDIT POTDAR

Address: Yeldarkar colony, Parbhani, Maharashtra, India 431401
Mobile: +91-8830194770; Email: pratikpotdar13@gmail.com
D.O.B.: 13/04/1993
ORCID: 0000-0002-5894-0885



EDUCATIONAL QUALIFICATION

Qualification	Specialization	Board / University	Year of Passing
Ph.D (Thesis submitted)	Processing and Food Engineering	Punjab Agricultural University, Ludhiana, India	2023
N.E.T.	Agricultural Structure and Process Engineering	Indian Council of Agricultural Research-ASRB	2018
M.Tech.	Processing and Food Engineering	Punjab Agricultural University, Ludhiana, India	2018
B.Tech.	Agricultural Engineering	Vasantrao Naik Marathwada Krishi Vidyapeeth, Parbhani, India	2015

PROFESSIONAL EXPERIENCE

1. Assistant professor

Sir Choturam College of Agricultural Engineering and Technology, Lodga, Latur, India

Work duration: January 2019 to January 2020

ACADMIC RESEARCH EXPERIENCE

1. Ph. D RESEARCH

Thesis title: Development of paddy straw based bio-composite packaging material for fresh produce

- Bio-composite food packaging materials were developed using paddy straw powder and three different bioplastics
- Food packaging trays were developed using casting and injection moulding techniques.
- White button mushrooms were stored in developed bio-composite materials and results were compared for commercially available packaging materials.

2. M.Tech RESEARCH

Thesis title: Process optimization for extraction of lemongrass essential oil

- The lemongrass was dried using pulsed microwave technique and convective dried samples for comparing bio-chemical properties.
- A set-up was developed for microwave assisted hydro-distillation (MAHD) of lemongrass essential oil.

3. B.Tech RESEARCH

Project title: Status of farm mechanization of Parbhani and Latur districts in Marathwada region

- Survey regarding land holding, use of farm machineries and implements used by farmers for different farm operations and their conditions, crops grown, area under cultivation, productivity, etc. was carried out.

TEACHING AND EXTENSION ACTIVITIES

✓ Teaching activities

- Principles of food processing
- Unit operations in food processing
- Farm machinery and equipments
- Training students for competitive exams in

✓ Extension activities

- Arranging training for machine dealers on “Dairy Technology and Dairy Products Processing”
- Demonstrating working of various food processing machines to start-up entrepreneurs and farmers

TRAINING AND WORKSHOPS

- Five days **International Workshop on "Technologies for Increasing the Shelf-Life of Perishable Foods"** (online mode) at NIT, Rourkela, India
- One month **internship-in-plant training** at **Bhansali Trailors Pvt. Ltd., Kopergaon, Maharashtra**
- Fifteen days of **AUTO-CAD Training** at **Indo German Tool Room , Aurangabad**

- Four month **Summer Placement Training on Seed Processing and Storage Engineering** at **Maharashtra State Seeds Corporation Limited, Parbhani, Maharashtra**
- One month **Summer Training** at **North Eastern Region Farm Machinery Training and Testing Institute, Biswanath Chariali, Assam**
- Short term course '**Maharashtra State Certificate in Information Technology (MS-CIT)**' related to computer operations securing 90% marks

RESEARCH INTERESTS

- Development of bio-based and edible food packaging materials
- By-product waste utilisation
- Food packaging : MAP, CAP, Vacuum, Nitrogen flushing
- Assessing biochemical changes in fresh produce during storage in various packaging materials
- Drying and dehydration of fruits and vegetables
- Extraction of essential oils
- Innovative food processing technologies

RESEARCH METHODS AND SCIENTIFIC/STATISTICAL TECHNIQUES

- Skilled at the destructive and non-destructive quality evaluation of food materials: UV-Vis-NIR spectroscopy, FTIR spectroscopy, XRD analysis, Texture analyzer, etc.
- Skilled at performing thermal characterization of materials using DSC, TGA analysis
- Adept in statistical analysis: SPSS, R studio, Graph Pad, Sigma plot, Minitab, Design Expert and MS Excel
- In-depth knowledge of unit operations of food processing

SOFT SKILLS

- Experience in mentoring undergraduates
- Excellent organizational, time management and planning skills
- Experience in communicating research and complex ideas to a wide variety of audiences including the general public
- Adaptive, collaborative and good listener
- Ability to work under pressure with patience

COMMUNICATION SKILLS

- Well versed in English, Hindi, and Marathi
- Elementary level proficiency in Punjabi

PUBLICATIONS

Research article:

- i. **Potdar P P**, Kaur P, Radhakrishnan S, Singh M, Neve H T, & Singh S (2023) Valorization of paddy straw through development of PLA-paddy straw fibre reinforced composites and their physical, morphological, mechanical and thermal characterization. *Biomass Conversion and Biorefinery*, <https://doi.org/10.1007/s13399-023-04752-2> **Impact Factor: 4.05**
- ii. **Potdar, P P**, Kaur P, Zalpouri R, & Ummat, V (2022). Convective and pulsed microwave drying of lemongrass (*Cymbopogon citratus*) shreds: Kinetic modeling, retention of bio-actives, and oil yield. *Journal of Food Processing and Preservation*, 46(12), e16914, <https://doi.org/10.1111/jfpp.16914> **Impact Factor: 2.61**
- iii. Singh G, Kumar M, Zalpouri R, **Potdar P P**, Singh K, & Kaur K. (2023). Effects of different aqueous extraction techniques on physicochemical quality and oil recovery of sesame oil. *Environment Conservation Journal*, 24(1), 136-142. <https://doi.org/10.36953/ECJ.11892309> **NAAS rating: 5.66**
- iv. **Potdar P P**, Kaur P, Singh M, Kulkarni M B & Radhakrishnan S (2023) Structure development and properties of plasticized PVA-starch-paddy straw composites. *Cellulose Chemistry and Technology*, (**Accepted for publishing**) **Impact Factor: 1.39**
- v. **Potdar P P**, Kaur P, Singh M, Kaur A & Radhakrishnan S (2023) Enhancing Surface Characteristics of Paddy Straw through Alkaline Pulping: Process Optimization, Morphological and Thermal Properties. *Cellulose Chemistry and Technology*, (**Submitted**) **Impact Factor: 1.39**

Book Chapter:

- i. **Potdar P P**, Kaur P, Zalpouri R, Kau, K & Kalsi B S (2022) *Application of microwave heating in cooking*, Handbook of Emerging Non-thermal Food Processing Technologies - Microwave Processing: Fundamentals and Applications, CRC Press, Taylor & Francis Group. (**Accepted for publication**)
- ii. Kaur K, Kumar S, Zalpouri R, Pandiselvam R, Kalsi B S & **Potdar P P** (2022) *Ozone technology in cereal grain sector: fundamentals and applications*. Applications of Ozone in food Industry: Recent Trends and Future Outlooks. Apple Academic Press, Inc, Florida (**Accepted for publication**)
- iii. Kalsi B S, Singh S, Kaur K, Zalpouri R & **Potdar P P** (2023) *Ohmic heating and its application in extraction technology for food and food products*. Ohmic heating: Potential tool for food processing. Apple Academic Press, Inc, Florida (**Accepted for publication**)

Magazine Article:

- i. Zalpouri R and **Potdar P** (2021) *Edible coating: types and their effects on fruits and vegetables*. Food Infotech Magazine, 2(11): Pp 34-36.

- ii. **Potdar P P** and Kaur P (2023) *Small town boy in the world of research through lemongrass* (Research story). *Just Agriculture Magazine* 3(9): Pp 268-270 e-ISSN: 2582-8223

Abstract:

- i. **Potdar P P**, Kaur P, Radhakrishnan S & Singh M, (2022) *structure development and properties of pla-paddy straw composites*. Proceeding of “VIIth International Conference on Global Research Initiatives for Sustainable Agriculture and Allied Sciences”, Merut, India.
- ii. **Potdar P P**, Kaur P & Radhakrishnan S (2022) *Structure Development and Properties of PVA-Starch-Paddy Straw Composites*. Proceeding of “International e-Conference on Biopolymers, APA bio-forum”, IIT Delhi, New delhi, India.
- iii. **Potdar P P**, Kaur P, Radhakrishnan S & Singh M, (2021) *Sustainable Food Packaging: Valorisation of Rice Straw into Green Packaging Application*. Proceeding of “55th Annual Convention of Indian Society of Agricultural Engineers on Emerging Trends in Agricultural Engineering Education, Research and Extension”, Dr. RPCAU, Samastipur, Bihar, India.
- iv. **Potdar P P** & Kaur P (2018) *Essential oil extraction from tray dried lemongrass using hydrodistillation method*. Proceeding of “21st Scientific Advances for Enclusive Development and Environmental Protection, Punjab Science Congress, Ludhiana, India.

CONFERENCE AND SEMINAR PRESENTATIONS

- Poster presentation in the VIIth International Conference on Global Research Initiatives for Sustainable Agriculture and Allied Sciences, Merut, India. (Online mode) - 2023
- Oral presentation in International e-Conference on Biopolymers, APA bio-forum, IIT Delhi, New delhi, India (Online mode) - 2022
- Oral presentation in 21st Scientific Advances for Enclusive Development and Environmental Protection, Punjab Science Congress, Ludhiana, India. -2018

AWARDS AND ACHIEVEMENTS

- Senior Research Fellowship (SRF) award for PhD- Indian Council of Medical Research, New Delhi, India
- National Talent Search scholarship (NTS) for PG - Indian council of Agricultural Research, New Delhi, India
- Secured all India rank-16 in Indian Council of Agricultural Research (ICAR) , Junior Research Fellowship exam for PG admission

EXTRA SOCIO-CURRICULAR ACTIVITIES

- Keen interest in social activities like tree plantation, blood donation, etc.
- Attended National Service Scheme (NSS) camp for six days as volunteer at Parbhani, Maharashtra, India
- Volunteering for Alumni meet (MOMENTS-2021) at P.A.U., Ludhiana, Punjab, India.

- Volunteering for youth leadership training programs for art of living organisation

SCIENTIFIC SOCIETIES

- Lifetime member of Indian Society of Agricultural Engineers (ISAE)

REFERENCES:

- **Dr Preetinder Kaur**, Principal Scientist (Supervisor), Department of Processing & Food Engineering, COAET, PAU, Ludhiana, Punjab, India.
Email ID: preetinder72@pau.edu; Phone: +91-95920-88335
- **Dr Manpreet Singh**, Scientist, Department of Renewable Energy Engineering, COAET, PAU, Ludhiana, Punjab, India.
Email ID: manpreet-sesa@pau.edu; Phone: +91-98146-28993
- **Dr. Padmini More**, Assistant Professor, Department of Processing and Food Engineering, COAET, VNMKV, Parbhani, Maharashtra, India.
Email ID: pramodinimore@gmail.com; Phone: +91-9420192273

Date: 14th August 2023
Place: Ludhiana, India

Pratik Pandit Potdar
Signature