



## **Dr. Pankaj Jha**

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### **Education:**

**Ph.D. in Chemical Engineering, Indian Institute of Technology Guwahati, Guwahati, Assam, India (2020).**

Dissertation: Preparation and Characterization of Starch based Bionanocomposite Films for Food Packaging Applications.

**Master of Technology in Food Engineering & Technology, Tezpur Central University, Tezpur, Assam, India (2014).**

Dissertation: Development of a Methodology for Production of Wine from Black Rice and Utilization of Black Rice Husk

**Bachelor of Engineering in Biotechnology, Vinayaka Missions University, Aarupadai Veedu Institute of Technology, Chennai, Tamilnadu, India (2011).**

Dissertation: Phytochemical Screening and Antibacterial Activity of *Anisomeles malabarica*.

### **Professional & Academic Work Experience:**

#### **Current**

*August 2024 – Till Now*

**Assistant Professor, Department of Food Technology, The Assam Royal Global University Betkuchi, Guwahati, Assam, India.**

#### **Previous Experiences**

*September 2021 – August 2024*

**Assistant Professor (Contractual), Department of Food Technology, Harcourt Butler Technical University Kanpur, Uttar Pradesh, India.**

*August 2020 – August 2021*

**Lecturer, College of Food Technology Yavatmal, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra, India.**



### **International Research Experience:**

October 2016-March 2017

**Special Research Student (PhD Intern), The United School of Agriculture Science, GIFU University, Japan (UGSAS-GU).**

Research project: Preparation and Characterization of Modified Starch based Films for Food Packaging Applications.

#### **Area of interest**

- Food Process Engineering
- Food Packaging
- Fermentation Foods
- Food Biotechnology
- Beverage Technology
- Extraction of Bioactive Compounds

#### **Publications:**

1. **Pankaj Jha** (2021) Functional properties of starch-chitosan blend bionanocomposite films for food packaging: the influence of amylose-amylopectin ratios. *Journal of Food Science and Technology*, 58:3368-3378.
2. **Pankaj Jha** (2020) Effect of Grapefruit Seed Extract Ratios on Functional properties of Corn starch-Chitosan Bionanocomposite Films for Active Packaging. *International Journal of Biological Macromolecules*, 163:1546-1556.
3. **Pankaj Jha** (2020) Effect of plasticizer and antimicrobial agents on functional properties of bionanocomposite films based on corn starch-chitosan for food packaging applications. *International Journal of Biological Macromolecules* 160:571-582.
4. **Pankaj Jha**, Dharmalingam K, Takahisa Nishizu, Nakako Katsuno and R. Anandalakshmi (2020) Effect of amylose-amylopectin ratios on physical, mechanical and thermal properties of starch based bionanocomposite films incorporated with CMC and nanoclay *Starch-Stärke* .
5. **Jha, P.**, Das, A. J., and Deka, S. C. (2018) Optimization of fermentation process for production of black rice wine and evaluation of its phenolic and volatile compounds. *Journal of the Institute of Brewing*.
6. **Jha, P.**, Das, A. J. and Deka, S. C. (2017) Optimization of ultrasound and microwave assisted extractions of polyphenols from black rice (*Oryza sativa* cv.Poireton) husk. *Journal of Food Science and Technology* DOI: 10.1007/s13197-017-2832-0.



7. **Jha, P.**, Das, A. J., and Deka, S. C. (2017) Optimization of saccharification conditions of black rice (cv. Poireton) using microbial strains through response surface methodology Journal of the Institute of Brewing 123(3):423-431.
8. **Jha, P.**, Das, A. J., Dash, K. K. and Deka, S. C. (2015) Sensory evaluation of black pigmented rice (*Oryza sativa* cv. Poireton) wine fortified with probiotic *Lactobacillus acidophilus* ATCC 4356 and *Lactobacillus sakei* ATCC 15521 using fuzzy logic. Journal of the Institute of Brewing 121(4):566- 573.
9. Remya M., Someshwar Nath and **Pankaj Jha** (2012) Bioactivity studies on *Anisomeles malabarica* (AM) R.Br. J. Biotech. and Biotherapeutics. 2(9): 1-8.

#### Oral/Poster Presentations at Conferences:

1. **Pankaj Jha** presented Oral Presentation in Online International Conference on Sustainable Approaches in Food Engineering and Technology (SAFETy-2021) on 24-25<sup>th</sup> June, 2021 organized by Department of Food Engineering & Technology, University of Georgia (US) in Association with AFST (I) Tezpur Chapter.
2. **Pankaj Jha** presented Oral Presentation in Online International Conference on Emerging Techniques in Food Processing (ETFP) on 25-26<sup>th</sup> March, 2021 organized by Department of Food Processing Technology, Ghani Khan Choudhury Institute of Engineering and Technology, Malda, India.
3. **Pankaj Jha** and R. Anandalakshmi (2019) Microwave-assisted modification of potato starch with xanthan gum, *REFLUX-2019*, September 28-29, Indian Institute of Technology Guwahati, Guwahati, Assam, India.
4. **Pankaj Jha** and R. Anandalakhmi (2015) Effect of Microwave Assisted Dry Heating on Corn Starch with Xanthan (Advanced Materials-AM:037). Poster presented (68<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers) CHEMCON 2015 during 27-30<sup>th</sup> December 2015, Indian Institute of Technology Guwahati, Assam, India.
5. **Jha, P.**, Malakar, B., Das, A. J., and Deka, S. C. (2014) Extraction of polyphenols from husk of black of Manipur as affected by ultrasound and microwave. Paper presented in the National Seminar on Recent Trends of Research in Science and Technology (59<sup>th</sup> Annual Technical Session of Assam Science Society), 29<sup>th</sup> March, 2014, hoisted by Cotton College State University, Guwahati, Assam, India.



## **Research Guidance**

As Supervisor of M. Tech. and B. Tech. Thesis:

M. Tech.: 02 Completed.

B. Tech.: 10 Completed.

## **Invited Talk**

**1. International Online Conference on Macromolecules (ICM 2020) on 13, 14 and 15 November 2020** organized by Mahatma Gandhi University, Kottayam, Kerala, India and Gdansk University of Technology, Gdansk, Poland.

**2. First International Online Conference on Blends, Composites, Bio-Composites and Nanocomposites (ICNC–2020) on 9, 10 and 11 October 2020** organized by Mahatma Gandhi University, Kottayam, Kerala, India, Siberian Federal University, Russia & Federal University of Rio de Janeiro, Rio de Janeiro, Brazil & Technical University of Gdansk, Gdansk, Poland & Wroclaw University of Technology Wroclaw, Poland.

## **Workshops/ Exhibition:**

1. Attended seminar on **“Special Lecture on Agriculture II organized by The United School of Agriculture Science, GIFU University (UGSAS-GU), of held in Gifu, Japan from 16<sup>th</sup> to 18<sup>th</sup> October 2016.**
2. Attended seminar on **“Research activity and Conversation on Biological Diversity and its Protocols”** organized by The United School of Agriculture Science, GIFU University (UGSAS-GU), of held in Gifu, Japan from 11<sup>th</sup> November 2016 and 10<sup>th</sup> January 2017.
3. Attended seminar on **“Scientific English Writing”** organized by The United School of Agriculture Science, GIFU University (UGSAS-GU), of held in Gifu, Japan from 4<sup>th</sup> November 2016 to 3<sup>rd</sup> February 2017.
4. Participation in exhibition on **“Ideas to Action: Let us Grow with Innovation”** organized by **ASTECC (DST, Govt. of Assam)** of held in Guwahati during 7<sup>th</sup>-8<sup>th</sup> September 2016.
5. Participation in workshop on **“Technical Communication and Writing”** organized by Indian Institute of Technology Guwahati, Assam, India during 13<sup>th</sup>-17<sup>th</sup> April 2015.



## Awards & Scholarships:

1. Selected for a six-month sandwich research program (“Preparation and Characterization of Modified Starch based Films for Food Packaging Applications”) offered by **The United School of Agriculture Science, GIFU University, Japan (UGSAS-GU)**, from 1<sup>st</sup> October 2016 to 31<sup>st</sup> March 2017.
2. Full Scholarship recipient of Japan Student Services Organization (JASSO) during sandwich program from **GIFU University, Japan**.
3. Senior research fellowship (SRF), from MHRD, Government of India 2016 – 2019.
4. Junior research fellowship (JRF), from MHRD, Government of India 2014 – 2016.
5. **Qualified GATE-2013 and GATE-2012** also was recipient of **AICTE-GATE** fellowship during M.Tech. Degree programme (2012-2014).

## Experience in Reviewing Scientific Articles

- Editorial Board Members of Acta Scientific Agriculture
- Reviewer for Carbohydrate Polymers, International Journal of Biological Macromolecules, Food Packaging and Shelf Life, Food and Bioprocess Technology, Journal of Food Measurement and Characterization, Biomass Conversion and Biorefinery, International Journal of Food Properties, Current Research in Nutrition and Food Science etc.

## Administrative activities

- Worked as convener on one-day webinar on agriculture Day 3<sup>rd</sup> December 2020 at College of Food Technology Yavatmal, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra, India.
- Worked as Assistant Warden at Shridhracharya Hostel with capacity of 130 students, Harcourt Butler Technical University, Nawabganj, Kanpur from Sep 2021 to August 2024.
- Kanpur Chapter Treasurer and Life Membership Association of Food Scientists & Technologists, India (AFST(I)) - AFST/LM-9- 2022/KAN/192’

