DR. RAMA CHANDRA PRADHAN

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Associate Professor
Department of Food Process Engineering
National Institute of Technology (NIT)
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CAREER SUMMARY

Current : Associate Professor (NIT Rourkela)
Highest Degree : **Ph. D.**, Indian Institute of Technology Delhi, India
M. Tech., Indian Institute of Technology, Kharagpur, India
Teaching & Research : **15+** years
Patent : **3** Granted & **1** Design Registration
Publications : Int. Journal: 99; National Journal: 07; Book Chapter: 14
Skills : Engineering properties of biomaterials and Post Harvest equipments for oilseeds, Agricultural Bio-Process & Food Engineering, Value addition and Biomass utilization
Editorial Board Member: Associate Editor of J Food Measurement and Characterization
Guest Editor of Measurement: Food Journal

WORK EXPERIENCE

Position	Name of the Institution	Period
Associate Professor	Department of Food Process Engg, National Institute of Technology (NIT), Rourkela	2nd Feb. 2018 - Continuing
Head of Department	Department of Food Process Engg, NIT Rourkela	1st July 2018 – 30th June 2021
Assistant Professor	Department of Food Process Engg, NIT Rourkela	4th June 2014 – 1st Feb. 2018
Assistant Professor	Department of Farm Engineering, Banaras Hindu University, Varanasi	20th Sept. 2010 – 02nd June 2014
Project Associate	Indian Institute of Technology (IIT), Delhi	April 2005 – Dec. 2005
Project Assistant	Indian Institute of Technology (IIT), Kharagpur	Aug. 2004 – Jan. 2005

EDUCATION

Ph. D January 2006 – May 2011
Title: Design and development of low-cost post-harvest equipment for Jatropha
Centre for Rural Development & Technology,
Indian Institute of Technology (**IIT**, www.iitd.ac.in), New Delhi, India
Supervisors: Prof. S N Naik, Prof. V K Vijay, & Prof. Naresh Bhatnagar

M. Tech (Post Harvest Engineering) July 2002- July 2004
Title: Production and continuous shaping of *Karapak* sandesh
Dept. of Agricultural & Food Engineering,
Indian Institute of Technology (**IIT**, www.iitkgp.ac.in)**,** Kharagpur, India
Supervisor: Late Prof. H. Das

B. Tech (Agricultural Engineering) Sept 1996 - Oct 2000
College of Agricultural Engineering & Technology (CAET)
OUAT (www.ouat.ac.in), Bhubaneswar, Orissa, India

AWARDS

1. Outstanding Faculty in Engineering, Food Processing, VIFA International Award-2017, organised by Venus International Foundation, Chennai.
2. Best Paper Award in the International Conference on Frontiers of Plant Sciences & Developing Technologies, organised by Mahima Research Foundation and Social Welfare, Varanasi, Uttar Pradesh, 7-8 November 2015.
3. Jawaharlal Nehru Award for Outstanding Doctoral Thesis Research - 2012 in Agricultural Engineering by I.C.A.R., New Delhi.
4. Awarded Graduate Student Exchange Program (GSEP) Fellowship by the Canadian Bureau for International Education (CBIE) to University of Saskatchewan in the Dept. of Agriculture and Bioresources Engineering, Saskatoon, Canada from 1st Sept 2008 to 28th Feb 2009.
5. Awarded full financial assistance for presenting a research paper in an international conference by DST, New Delhi, India, under International Travel Support Scheme.
6. Qualified in *Graduate Aptitude Test in Engineering* (GATE'2002) Exam. in Agricultural Engineering.
7. Qualified in *Indian Council of Agricultural Research* (ICAR'2001) Exam. in Agricultural Engineering. With all India Rank 10.

TEACHING EXPERIENCE

Course Name	Organisation	Level
Post Harvest Technology	BHU-Varanasi	B. Sc. Agri.
Farm Power and Machinery	BHU-Varanasi	B. Sc. Agri.
Processing and value addition to cereals, pulses and oilseeds	BHU-Varanasi	B. Sc. Agri.
Rheology, Chemistry & Physics of Biological Materials	BHU-Varanasi	PG (Food Sci. & Tech.)
Advances in Grain Dying	BHU-Varanasi	PG (Food Sci. & Tech.)
Engineering Properties of Biological materials laboratory	NIT Rourkela	B. Tech. (Food Process Engg.)
Food Process Equipment and Plant Design	NIT Rourkela	B. Tech. (Food Process Engg.)
Food Laws, Regulations and Certification	NIT Rourkela	B. Tech. (Food Process Engg.)

Food Industry By-product and Waste Management	NIT Rourkela	B. Tech. (Food Process Engg.)
Advanced Thermal Operation in Food Processing	NIT Rourkela	PG (Food Process Engg.)
Advanced Food Processing Machinery	NIT Rourkela	PG (Food Process Engg.)

PG GUIDANCE {M. Tech. (R) / M. Tech. / M. Sc.}

S. No.	Degree /Thesis	Title of Thesis	Year of award/ Status
01	M. Sc. in Food Science and Technology	Expression of Bottle gourd (*Lagenaria sicerari)* seed oil and its Byproduct Utilization	2014 (Awarded)
02	M. Tech. (Research) in Food Process Engineering	Design, development and testing of Sal (*Shorea robusta*) seed decorticator	2017 Awarded
03	M. Tech. in Food Process Engineering	Application of Artificial Neural Network in Enzymatic Extraction of Juice from Chironji (*Buchanania lanzan*) Fruit and Roasting of Its Kernels	2020 Awarded
04	M. Tech. in Food Process Engineering	Development of a Process for the Enzymatic Extraction of Bael Fruit (*Aegle marmelos* C.) Juice and its Byproduct Utilization	2020 Awarded
05	M. Tech. in Food Process Engineering	Microwave and Ultrasound assisted Extraction of Bioactive Compounds from Cashew Apple Bagasse	2021 Awarded
06	M. Tech. in Food Process Engineering	Development of a Process for Ultrasound and Microwave-assisted Solvent Extraction of Phytochemical Rich Oil from Myrobalan (*Terminalia chebula*) Kernel	2021 Awarded

RESEARCH GUIDANCE (Ph.D.)

S. No.	Degree /Thesis	Title of Thesis	Year of award/ Status
01	Ph.D. in Bio Process and Food Engineering	Super-Critical CO_2 Extraction of Bottle gourd (*Lagenaria sicerari)* seed oil	2014 (Awarded)
02	Ph.D. in Food Process Engineering	Development of a Process for Clarification and concentration of Jamun juice using membrane filtration	2018 (Awarded)
03	Ph.D. in Food Process Engineering	Design, Development and Testing of a Peeler cum Cutter Machine for Tender Jackfruit	2019 (Awarded)
04	Ph.D. in Food Process Engineering	Development of spray dried probiotic powder from ultrasound assisted	2019 (Awarded)

		enzymatically extracted *Sohiong (prunus nepalensis)* juice	
05	Ph.D. in Food Process Engineering	Development Of Membrane Filtration Process Protocol For Reduction Of Astringency And Retention Of Bioactive Compounds In Cashew Apple (*Anacardium Occidentale* L.) Juice	2022 (Awarded)
06	Ph.D. in Food Process Engineering	Design And Development Of A Cryogenic Decorticator Cum Grinder For Phytochemical Rich Myrobalan Fruit Powder	2022 (Awarded)
07	Ph.D. in Food Process Engineering	Development of Extruded Breakfast Cereal using Dehulled Kodo Millet	On going
08	Ph.D. in Food Process Engineering	Development of Solar drying system for Fruits and Vegetables	On going
09	Ph.D. in Food Process Engineering	Processing of Millets Using Cold Plasma Technology	On going
10	Ph.D. in Food Process Engineering	Application Of Low Temperature Technology For Development Of Millet Based Smart-Healthy Products	On going
11	Ph.D. in Food Process Engineering	Utilization of Fruit and Vegetables By-Product for value added products	On going
12	Ph.D. in Food Process Engineering	Valorization Of Citrus Fruit And By-Products Using Non-Thermal Technology	On going

SPONSORED RESEARCH PROJECT

Sl. No	**Title**	**Sponsoring Agency**	**Amount (Rs.)**	**Duration (Year)**
1	Extraction of nutraceutical components from bottle gourd seeds using super critical extraction technology **(PI)**	SERB, DST, New Delhi	840000.00	02 (2013-16) (Completed) 1st Nov 2013 to 31st Jan 2016
2	Design, development and testing of a continuous Aonla pricking machine **(PI)**	SEED Division, DST, New Delhi	1092140.00	02 (2015-17) (Completed) 14th July 2015 to 13th July 2017
3	Development of a microwave assisted UV sterilization system for liquid food **(Co-PI)**	ICAR, New Delhi	3197000.00	02(2016-2018) (Completed) 1st Feb 2016 to 31st Jan 2018
4	Utilisation of Minor Millets for Ready-to-eat Nutritious Snacks Product by Wet	SERB, New Delhi	4596000.00	03 (2017-2020) (Completed)

	Extrusion Technology **(PI)**			15 Mar 2017 to 14 Mar 2020
5	Study on Novel Non-Thermal Operation for Clarification and Concentration of Fruit Juice (Anacardium occidentale L.) and its By-product Utilizations (PI)	SERB, New Delhi	4269168.00	03 (2017-2020) (Completed) 31 Aug 2017 to 30 Aug 2020
6	Design, Development and Testing of a Myrobalan Decorticator for Rural Application **(PI)**	Tribal Cooperative Marketing Development Federation of India Ltd (TRIFED), New Delhi	1596250.00	02 (2017 – 2019) (Completed)
7	Investigation of Institutional Factors Influencing Vegetable Farmers' Marketing Channel Choices in Odisha (**Co-PI**)	Indian Council of Social Science Research (ICSSR), New Delhi	1200000.00	02 (2019- 2021) (Completed) 09 May 2019 to 08 May 2021
8	Development of a process for enhancing functional properties and reducing Microbial activity of Miner Millet flour using cold plasma **(PI)**	Science & Engineering Research Board (SERB)	3491400.00	03 years (2021 – 24) (Ongoing) 9 Mar 2021 to 8 Mar 2024
9	Waste to Wealth- Sustainable and Innovative Organic Farming Techniques especially for Women Farmers of the Peripheral Areas of RSP **(PI)**	SAIL, Rourkela Steel Plant, Rourkela, Odisha	4502282.00	04 (2021 – 2025) (Ongoing) 15th May 2021 to 14th May 2025
10	Application of Low Temperature Technology for Development of Millet Based Smart-Healthy Breakfast Products **(PI)**	Science & Engineering Research Board (SERB)	4052400.00	03 years (2022 – 25) (Ongoing) 09 March 2022 to 08 March 2025
11	Development of a Rural Bioresources Complex in Tribal Districts of Western Odisha for Primary Processing and Value addition of Horticultural and Non-Timber Forest Produce **(PI)**	DBT, New Delhi	1674400.00	02 years (2022 – 24) (Ongoing) 21 Feb. 2022 to 20 Feb. 2023
12	Analysis of Traditional Food Platter of Tribal to Boost Nutritional Security **(Mentor)**	DST, New Delhi (Women Scientist Project)	2864144.00	02 years (2022 – 24) (Ongoing) 25 Nov. 2021 to 24 Nov. 2023
13.	Development of 5 Myrobalan	Tribal Cooperative	670828.00	06 Months

	Decorticator for Tribal Application **(PI)**	Marketing Development Federation of India Ltd (TRIFED), New Delhi		(2024) 02 April – 01 Oct 2024

LABORATORY DEVELOPED

1. Laboratory for Physico-chemical analysis of agricultural products (BHU-Varanasi & NIT Rourkela)
2. Laboratory for Cereal, Pulses and Oilseed Milling (BHU-Varanasi & NIT Rourkela)
3. Product Development Laboratory (NIT Rourkela)
4. Non-Thermal Processing Laboratory (NIT Rourkela)
5. Laboratory for Non-Timber Forest Produces (NTFPs) and Millets Processing (NIT Rourkela)

MEMBERSHIP

1. Life Member of Indian Society of Agricultural Engineering (LM-10629)
2. Life Member of Institute of Engineers (India) (M-151004-5)
3. Life Member of Association of Food Scientists and Technologists (10/L072/17/ZON)
4. Member of the American Society of Agricultural & Biological Engineers (ASABE) (M-1054546)
5. International Society for Horticultural Sciences (ISHS) Individual Membership (No-92750)
6. Member of the Institute of Food Technologists (IFT) (ID-01206689)

PATENT

1. Naik, S.N., Bhatnagar, N., **Pradhan, R.C**. 2009. An apparatus for decortications of oil fruits/seeds for separation of shell from kernel. Application No.:1590/DEL/2007. Indian Patent Granted on 12 Jan 2015. No.: 264631
2. Singh S.S., **Pradhan, R.C**., Mishra, S. 2024. An apparatus for peeling and cutting of tender jackfruit. Application no.: 201931023023, Indian Patent Granted on 01 Jan 2024. No.: 495171
3. Pathak, S.S., **Pradhan, R.C.**, Mishra, S. (2023). A Low Temperature Decortication cum Grinding Machine for Myrobalan Fruits. (Application No.: 202131040791) Indian Patent Granted on 21 Nov. 2023. No.:471237
4. Throta, N., **Pradhan, R.C.**, Dwivedi, M (2024). All-in-one Millet Processing Machine. Certificate of Registration of Design No.: 399904-001 issued on 12 Jan 2024.

CONTINUING EDUCATION

- **Chairman** in National Conference on "Advances in Food Processing for Sustainable Food Security" (AFP-2019), held on 17-19 May 2029.

- **Co-Cordinator** in Karyashala High-end International Workshop on Technologies for Increasing the Shelf-Life of Perishable Foods, held on 13-17 December 2021.
- **Co-Cordinator** in Karyashala High-end International Workshop on Sustainable Disruptive Technology in Agri-Food Sector for Processing and Preservation, held on 11-15 July 2022.
- **Convener** in International Conference on "Key Enabling Technologies for Sustainable Agri-Food Chain" (KETSAC-2022) held on 9-11 December 2022.
- **Co-Cordinator** in GIAN Course on "Texture, Rheology and Tribology Characteristics of Food Materials: Recent Advances" held on 12-16 December 2022.

PUBLICATIONS

International Journal's Paper: 99

1. **Jaddu, S.,** Dwivedi, M., Pradhan R.C. (2024). Exploring the impact of cold plasma treatment on Rheological Characteristics of Little Millet Flour, J food Measurment and characterization, 2024. Accepted.
2. **Jaddu, S.,** Sonkar, S., Seth, D., Dwivedi, M., Pradhan R.C., Goksen, G., Sarangi, P. K., Jambrak, A. R. (2024). Cold Plasma: Unveiling Its Impact on Hydration, Rheology, Nutritional, and Anti-nutritional Properties in Food Materials – An Overview. *Food Chemistry X, 22,* 101266. (SCI: IF 6.1)
3. **Jaddu, S.,** Sahoo, S., Sonkar, S., Alzahrani, K., Dwivedi, M., Misra, N.N., Pradhan, R. C. Cold plasma treatment of little millet flour: impact on bioactives, antinutritional factors and functional properties (2024). *Plant Foods for Human Nutrition*, 1-8. (SCI: IF 4.0)
4. **Jaddu, S.,** Abdullah, S., Sonkar, Dwivedi, M., S., Pradhan, R. C., Seth, D., Sarangi, P. K.,Goksen, G. (2024). Effect of multi-pin (open air) atmospheric plasma on the rheological characteristics of Locust bean gum. *Journal of Food Process Engineering*, *e 14540*. (IF 3.0)
5. A. Gaurav, J. Kedia, Md. F. Rahi, R.C. Pradhan, S. Mishra, "Use of flours from traditional pan and salt-bed-roasted grains in the production of breakfast cereal:Spatial, morphological, techno-functional, structural, and rheological analysis", J Food Process Engineering, February 2024, e14580.
6. A. Gaurav, C.G. Dalbhagat, J. Kedia, Md. F. Rahi, R.C. Pradhan, S. Mishra, "Effects of dry-heat treatment on amylose content, hydration, structural and pasting properties of kodo flour for application in breakfast cereal", J food Measurment and characterization, 2024. Accepted.
7. Sonkar, S., **Jaddu, S.,** Dwivedi, M., Pradhan, R. C. (2023). Impact of multi pin atmospheric cold plasma on dynamic rheological characteristics of kodo millet starch. *Journal of Food Process Engineering, e14485*. (SCI: IF 3.0)
8. Panda, T. C., **Jaddu**, **S.,** Bansode, V., Dwivedi, M., Pradhan, R. C., Seth, D. (2023). A novel approach to increase calcium and fiber content in pasta using Kadamb fruit (Neolamarckia cadamba) powder and study of functional and structural characteristics. *Journal of Food Science and Technology*. (SCI: IF 3.2)

9. Bansode, V., Dwivedi, M., Pradhan, R. C., Panda, T. C., Niranjan, T., **Jaddu**, **S.,** Tomar, M. S. (2023). Investigation of Physicochemical, Mechanical, Thermal and Rheological Properties of Mrigbahar Nagpur Mandarin (Citrus reticulate Blanco.). *Journal of Scientific & Industrial Research,82*(3), 370-377. (IF 1.056)
10. M.S. Tomar, R. C. Pradhan, R. C., "Effect of Hydro and Cold Room Pre-cooling on Cooling Kinetics and Post-harvest Quality of Amla: effect of pre-cooling on quality of amla". Journal of Scientific & Industrial Research (JSIR), 2023, 82(08), 899-905.
11. S. Sonkar, J. Samuel, R. C. Pradhan, M. Dwivedi, D. Seth, G. Goksen, P. K. Sarangi, and J. M. Lorenzo, "Effect of atmospheric cold plasma (pin type) on hydration and structure properties of kodo-millet starch", LWT - Food Science and Technology, vol.182, Elsevier, June 2023, 10.1016/j.lwt.2023.114889
12. V. Bansode, M. Dwivedi, R. C. Pradhan, T. C. Panda, S. Jaddu, K. Subrahmanyam, and S. Sahoo, "Impact of plasma activated water (PAW) on polyphenols, antioxidant properties, and anti-nutrients of sweet orange (*Citrus sinensis*) peel powder", Biomass Conversion and Biorefinery, April 2023, 10.1007/s13399-023-04255-0
13. K. Vivek, S. Mishra, R. C. Pradhan, M. Nagaraja, P. K. Kumar, S. S. Singh, D. Manvi, N. N. Gowda, "A comprehensive review on microencapsulation of probiotics: technology, carriers and current trends", Applied Food Research, Vol. 3, Elsevier, 2023, 10.1016/j.afres.2022.100248
14. Gaurav, A. Panigrahi, S. S. Prathan, R. C. & Mishra, 5 (2022) Co rotating extrum cooking impact on product characteristics usung hulled kodo millet and hybod maize flour Journal of Food Science and Technology, 39(11), 4165-4175 DOI: 10.1007/13197 022-05-467-4 (IF 3.1)
15. S. Abdullah., S. Karmakar, S. Mishra, and R. C. Pradhan, "Ultrafiltration of cashew apple juice using hollow fibers for shelf life extension: process optimization, flux modelling and storage study", J Food Measurement and Characterization, Sprimger, December 2022, 10.1007/s11694-022-01790-8
16. J. Samuel, A. S, M. Dwivedi, and R. C. Pradhan, "Multipin cold plasma electric discharge on hydration properties of kodo millet flour: Modelling and optimization using response surface methodology and artificial neural network–Genetic algorithm", Food Chemistry: Molecular Sciences, vol.5, Elsevier, December 2022, 10.1016/j.fochms.2022.100132
17. J. Samuel, A. S, M. Dwivedi, and R. C. Pradhan, "Optimization of functional properties of plasma treated kodo millet (open air multipin) using response surface methodology (RSM) and artificial neural network with genetic algorithm (ANN-GA)", Journal of Food Process Engineering, John Wiley and Sons Ltd, November 2022, 10.1111/jfpe.14207
18. T. C. Panda, T. Niranjan, M. Dwivedi, R. C. Pradhan, and D. Seth, "Mass modeling of engineering properties and characterization of Kadamb fruit (*Neolamarckia cadamba*): An underutilized fruit", J food process engineering, Willey, September 2022, 10.1111/jfpe.14160
19. Patel, A. Patra, M. Sahithi, M. Dwivedi, and R. C. Pradhan, "Physico-textural properties and mass modelling of Indian jujube (Ziziphus mauritiana L.)", Fruits, The International

Journal of Tropical and Subtropical Horticulture, International Society for Horticultural Science, August 2022, 10.17660/th2022/017

20. M. A. Malla, A. Dubey, A. Kumar, D. R. Vennapu, N. Upadhyay, D. Pradhan, R. C. Pradhan, and S. Yadav, "Process optimization of cypermethrin biodegradation by regression analysis and parametric modeling along with biochemical degradation pathway", Environmental Science and Pollution Research, Springer, June 2022, 10.1007/s11356-022-21191-0
21. Gaurav, S. S. Panigrahi, R. C. Pradhan, and S. Mishra, "Co-rotating Extrusion Cooking Impact on Product Characteristics using Hulled Kodo Millet and Hybrid Maize Flour", Journal of Food Science and Technology, Springer, May 2022, 10.1007/s13197-022-05467-4
22. R, G. Patel, M. Dwivedi, S. Hashmi, and R. C. Pradhan, "Synthesis and Characterization of Edible Films from Garlic (*Allium sativum*) Husk Components", Journal of Scientific & Industrial Research, vol.81, no.5, pp.455-461, NIScPR PUBLICATIONS, May 2022
23. M. S. Tomar, and R. C. Pradhan, “Prediction of mass-based process designing parameters of amla fruit using different modeling techniques”, J food process engineering, Willey, March 2022, 10.1111/jfpe.14039
24. S, S. Karmakar, R. C. Pradhan, and S. Mishra, "Pressure-driven crossflow microfiltration coupled with centrifugation for tannin reduction and clarification of cashew apple juice: Modeling of permeate flux decline and optimization of process parameters", Journal of Food Processing and Preservation, Wiley, March 2022, 10.1111/jfpp.16497
25. S. Jaddu, R. C. Pradhan, and M. Dwivedi, "Effect of multipin atmospheric cold plasma discharge on functional properties of little millet (panicum miliare) flour", Innovative Food Science & Emerging Technologies, vol.77, pp.102957, Elsevier 2022, 10.1016/j.ifset.2022.102957
26. Gaurav, A. Nath. D. Bachhuna R. & Pradhan, R. C. (2021) Physical characterization and mass modeling of traditionally Popped Makhana (Euryale feroz Salisbury) variety Sabour-I Makhana Journal of Food Process Engineering e13927 DOI 10.1111/jfpe 13927 (IF 3.0)
27. D. R. Dash, S. S. Pathak, and R. C. Pradhan, "Extraction of oil from Terminalia chebula kernel by using ultrasound technology: Influence of process parameters on extraction kinetics", Industrial Crops & Products, vol.171, pp.113893, ELSEVIER, August 2021, 10.1016/j.indcrop.2021.113893
28. Patra, A. S, and R. C. Pradhan, "Application of Artificial Neural Network-Genetic Algorithm and Response Surface Methodology for Optimization of Ultrasound-Assisted Extraction of Phenolic Compounds from Cashew Apple Bagasse", Journal of Food Process Engineering, Willey, July 2021, 10.1111/jfpe.13828
29. Patra, A. S, and R. C. Pradhan, "Microwave-assisted extraction of bioactive compounds from cashew apple (Anacardium occidenatale L.) bagasse: modeling and optimization of the process using response surface methodology", Journal of Food Measurement and Characterization, Springer, July 2021, 10.1007/s11694-021-01042-1
30. K. Prabha, P. Ghosh, A. S, R. M. Joshep, R. Krishnan, S. S. Rana, and R. C. Pradhan, "Recent development, challenges, and prospects of extrusion technology", Future Foods, vol.3, Elsevier, June 2021, 10.1016/j.fufo.2021.100019

31. S, R. C. Pradhan, and S. Mishra, "Effect of cellulase and tannase on yield, ascorbic acid and other physicochemical properties of cashew apple juice", Fruits, vol.76, no.2, pp.51-60, International Society for Horticultural Science (ISHS), March 2021, 10.17660/th2021/76.2.1
32. D. Sonawane, S. S. Pathak, and R. C. Pradhan, "Bioactive compounds in bael fruit pulp waste: ultrasound-assisted extraction, characterization, modeling, and optimization approaches", biointerface research in applied chemistry, vol.11, no.2, pp.9318-9334, 2021, 10.33263/briac112.93189334
33. G. Panda, V. K, S. Mishra, and R. C. Pradhan, "Characterization and Optimization of Process Parameters for Enzyme Assisted Extraction of Kendu (Diospyros Melanoxylon Roxb.) Fruit Juice", International Journal of Fruit Science, vol.21, no.1, pp.299-311, Taylor and Francis 2021, 10.1080/15538362.2021.1873220
34. D. Pradhan, A. S, and R. C. Pradhan, "chironji (buchanania lanzan) fruit juice extraction using cellulase enzyme: modelling and optimization of process by artificial neural network and response surface methodology", journal of food science and technology, vol.58, no.3, pp.1051-1060, springer 2021, 10.1007/s13197-020-04619-8
35. S. Mohanty, S. Mishra, and R. C. Pradhan, "Development and process optimization of spray dried powder from enzymatically extracted ripe palm (Borassus Flabellifer) juice", Journal of Microbiology, Biotechnology and Food Sciences, vol.10, no.6, FBFS, SUA, Nitra, Slovakia 2021, 10.15414/jmbfs.2539
36. D. R. Dash, S. S. Pathak, and R. C. Pradhan, "Improvement in novel ultrasound-assisted extraction technology of high value-added components from fruit and vegetable peels", journal of food process engineering, vol.44, no.4, blackwell publishing inc. 2021, 10.1111/jfpe.13658
37. Patra, A. S, and R. C. Pradhan, "Microwave-assisted extraction of bioactive compounds from cashew apple (Anacardium occidenatale L.) bagasse: Modeling and optimization of the process using response surface methodology", Journal of Food Measurement and Characterization, Springer 2021, 10.1007/s11694-021-01042-1
38. S, R. C. Pradhan, D. Pradhan, and S. Mishra, "Modeling and optimization of pectinase-assisted low-temperature extraction of cashew apple juice using artificial neural network coupled with genetic algorithm", Food Chemistry, vol.339, no.127862, Elsevier 2021, 10.1016/j.foodchem.2020.127862
39. V. K, S. Mishra, and R. C. Pradhan, "Optimization of spray drying conditions for developing non-dairy based probiotic Sohiong fruit powder", International Journal of Fruit Science, vol.21, no.1, pp.193-204, Taylor and Francis 2021, 10.1080/15538362.2020.1864567
40. S. Yadav, S. Mishra, and R. C. Pradhan, "Ultrasound-assisted hydration of finger millet (Eleusine Coracana) and its effects on starch isolates and antinutrients", Ultrasonics Sonochemistry, vol.73, no.105542, pp.1-9, Elsevier 2021, 10.1016/j.ultsonch.2021.105542
41. P. Bose, D. Pradhan, A. D. Sonawane, S. S. Pathak, S. Anupriya, and R. C. Pradhan, "Optimization of hot air and microwave pretreatment for enhancing the mechanical expression yield of Simarouba glauca oil", Journal of Agriculture and Food Research, vol.2, pp.100024, Elsevier, December 2020, 10.1016/j.jafr.2020.100024

42. S. S. Pathak, A. D. Sonawane, R. C. Pradhan, and S. Mishra, "Effect of Moisture and Axes Orientation on the Mechanical Properties of the Myrobalan Fruits and its Seed Under Compressive Loading", Journal of The Institution of Engineers (India): Series A, Springer, October 2020, 10.1007/s40030-020-00476-y
43. D. Sonawane, S. S. Pathak, and R. C. Pradhan, "Optimization of a Process for the Enzymatic Extraction of Nutrient Enriched Bael Fruit Juice Using Artificial Neural Network (ANN) and Response Surface Methodology (RSM)", Journal: International Journal of Fruit Science, Taylor & Francis, October 2020, 10.1080/15538362.2020.1834898
44. D. Pradhan and R. C. Pradhan, "Optimization of process parameters using a hybrid intelligent system model and evaluation of physicochemical properties of microwave roasted Chironji (Buchanania lanzan) kernels", Journal of Food Measurement and Characterization, vol.14, pp.2956-2965, Springer, July 2020, 10.1007/s11694-020-00537-7
45. D. Pradhan and R. C. Pradhan, "Integration of artificial neural network with genetic algorithm for an optimum performance of a Chironji (Buchanania lanzan) nut decorticator", International Journal of Postharvest Technology and Innovation, Inderscience Publishers, February 2020
46. D. Sonawane, S. S. Pathak, and R. C. Pradhan, "Physical, thermal, and mechanical properties of bael fruit", Journal of Food Process Engineering, John Wiley & Sons, February 2020, 10.1111/jfpe.13393
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19. **Pradhan, R.C.** 2015. Effect of various parameters on *Lagenaria siceraria* seed's oil expression using an oil expeller. International Conference on Frontiers of Plant Sciences & Developing Technologies, organised by Mahima Research Foundation and Social Welfare, Varanasi, Uttar Pradesh, 7-8 November 2015.
20. **Pradhan, R.C**., Patel, A. S., Mishra, S. 2016. Screw press oil expression from *Lagenaria siceraria* seed. 50th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and Symposium on "Agricultural Engineering in nation Building: Contribution and Chanllenges", 19-21 January 2016, College of Agricultural Engineering & Technology, Orissa University of Agriculture & Technology, Bhubaneswar, Odisha, India.
21. Shashi, K.C., **Pradhan, R.C**., Mishra, S. 2016. Effect of moisture content on physical properties of sal (*Shorea robusta*) seeds. 2nd International Conference on Food Properties (iCFP 2016), 31st May – 2nd June, 2016, Bangkok, Thailand.
22. Shashi K.C., **Pradhan, R.C**., Mishra, S. 2016. Machine performance on shelling of sal (*Shorea robusta*) seed. International Conference on Emerging Technologies in Agricultural and Food Engineering, 27-30 December, 2016, Indian Institute of Technology, Kharagpur, West Bengal, India.
23. A. Srimagal, S. Mishra, and R. C. Pradhan, Effect of ethyl oleate treatment on drying of bitter gourd, ASABE Annual International Meeting, American Society of Agricultural and Biological Engineers, 2016, 10.13031/aim.20162461378
24. **Pradhan, R.C**., Rana, S.S., Mishra, S. 2017. A Process for prevention of browning in fresh cut tender fackfruit. ICGFS 2017: 19th International Conference on Global Food Security, 8-9th January 2017, Singapore.
25. **Pradhan, R.C**., Shashi, K.C., Pradhan, D., Mishra, S. 2018. Mechanical Expression of Mahua (*Madhuca indica*) seed's Oil. 8th International Food Convention organized by AFST(i), 12-15 Dec 2018, Mysore.
26. **Pradhan, R.C**., Patel, A.S., Mishra, S. 2019. Expression of oil from *Lagenaria siceraria* seed using mechanical oil expeller, ASABE Annual International Meeting, American Society of Agricultural and Biological Engineers, 7-10 July 2019, USA.
27. Gaurav, A., **Pradhan, R.C**., Patel, A.S., Mishra, S. 2022. Impact of consolidated stress on wall friction behavior of hydrothermally treated Kodo (*Paspalum scrobiculatum*) millet flour, 21st World Congress of Food Science and Technology, International Union of Food Science and Technology, 31 October – 3 November 2022, Singapore.

Invited as Subject Specialist / Invited Speaker / Misc.

- Given a presentation on "Post harvest processing of Jatropha and Production of biodiesel" in Farmers Training programme at C.S.A. Agril. University, Kanpur, India.
- Given a presentation on "Processing and Production of biodiesel from Jatropha" as in "National Seminar on Biofuel: Future Energy Source" at Ajay Binay Institute of Technology, Cuttack, Orissa, India.
- Given a presentation on "Post Harvest Technology of Jatropha" on "Jatropha Cultivation: Current Status, Viability and Future Strategies" on 26th July, 2006 at C.C.S. Haryana Agril. University, Hissar, India.
- Given a presentation on "Post harvest technology of Jatropha for production of biodiesel" on 18th and 26th December, 2006 in Trainer Training programme organized by NOVOD Board, Gurgaon, India.
- Given a presentation on "Machine Requirements for Mango Cultivation and Processing" in National Seminar on "Chausa Mango Processing and Export Opportunities from Uttar Pradesh, Saharanpur" on 13th August, 2013 at Saharanpur, UP, India.
- Given a presentation on "An Overview of Food Processing Sector in India" in 23rd paper meeting of the session 2014-16 at The Institution of Engineers (India), Rourkela Local centre on 24th February 2016.
- Invited Lecture on "Impact of COVID-19 on Food Fraud & it's Prevention" in the National Webinar on "Agriculture and Food during COVID-19 Pandemic" organized by Society for World Environment, Food and Technology (SWEFT), Meerut (U.P.) on May 30, 2020.
- Invited Lecture on "Use of membrane filtration technology for fruit juice processing" in an International Joint Webinar (IJW) on 16th October 2020 (World Food Day) at the Department of Chemical Engineering, IIT Guwahati in collaboration with GIFU University.
- Invited Speaker in the National Webinar on "Environmental challenges and solutions" held on 20 August 2021, organized by Department of Botany, Dr. Harisingh Gour Vishwavidyalaya (A Central University), Sagar (MP), India.
- Invited Lecture on "Valorization of Horticulture Produce/By-Products" in the "International Conference on Recent Advances in Horticulture Research (ICRAHoR-2022)" on 8-9 August 2022 at Amity University Uttar Pradesh, Noida.
- Member, Board of Studies (BoS) on B. Tech. and M. Tech. Food Technology Syllabus, Vignan's Foundation for Science Technology and Research, Andhra Pradesh, 2020-2021.
- Evaluated Project proposal from DST, SERB, New Delhi; Evaluated PhD Thesis from various Institutes.
- Reviewer of various reputed International Journals

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