


Dr. Deepanka Saikia

Assistant Professor

Department of Agricultural Engineering, SoABE

 Centurion University of Technology & Management
Paralakhemundi, Odisha, India - 761221

 deepanka.saikia@cutm.ac.in  +91 (863) 850-1475



SUMMARY

As a Food Technologist with extensive knowledge and experience in food processing, preservation, product development, machine design, drying, and quality assessment, I aspire to impart my expertise to the academic community by teaching and conducting research in the field of Food Engineering and Technology to leverage my skills in research and development, food production, and quality control. My proven ability to significantly contribute to the field through both teaching and research activities is supported by my rigorous academic training and practical work experience.

EMPLOYMENT HISTORY

Junior Project Technician

Department of Food Engineering & Technology, CIT Kokrajhar, India 2020 – 2021

Assistant Professor

Department of Food Processing, L.T.K. College, Assam, India 2018 – 2019
⊖ Teaching and administrative works

Quality Analyst

Yommi Industries, Likabali, Arunachal Pradesh, India 2017 – 2018
⊖ Quality analysis of packaged drinking water

Quality Analyst

Polo International, Nirjuli, Arunachal Pradesh, India 2014 – 2015
⊖ Quality analysis of packaged drinking water

EDUCATION HISTORY

PhD (Food Engineering & Technology) CIT, Kokrajhar, India 2023
⊖ Technological advancements in post-harvest processing of selected underutilized fruits and ferns of NER India

M. Tech (Food Processing Engineering) Assam University, Silchar, India 2017
⊖ Comparative study of different drying techniques on quality attributes of tashe (*Cyathea gigantea*)

B. Tech (Food Processing Technology) CIT, Kokrajhar, India 2014
⊖ Development of biscuits incorporated with jack-fruit (*Artocarpus heterophyllus*) seeds and cassava (*Manihot esculenta*) and study of their physico-chemical characteristics

PERSONAL DETAILS

Father's Name	–	Biswa Saikia
Mother's Name	–	Bulumai Saikia
Date of Birth	–	4 th March 1993
Category	–	Unreserved
Languages Known	–	English, Hindi and Assamese
Nationality	–	Indian
Permanent Address	–	Harmoti, Lakhimpur, Assam- 784160

CONFERENCE/SEMINAR

- ⊕ **Paper presentation** on “Development of indirect type solar dryer and experiments for estimation of drying parameters of Dhekia (*Diplazium esculentum*)” in the International Conference on Materials, Mechanics and Modelling (**ICMMM 2021**) organized by NIT Jamshedpur, India from 4th to 6th March, 2022
- ⊕ **Paper presentation** on “Design, Development and Performance Evaluation of Foot operated Elephant apple Core cutter” in the 19th International Conference on Humanizing Work and Work Environment (**HWWE 2021**) organized by IIT Guwahati, India from 1st to 3rd December, 2021
- ⊕ **Participation** in the Webinar on “Winning the Game of Publishing” organized by Wiley Research on 28th October, 2021
- ⊕ **Participation** in the International Webinar on “Innovations and Advances in Agricultural Engineering” organized by Agricultural Engineering College and Research Institute, Trichy, India from 2nd to 4th December, 2020
- ⊕ **Participation** in the National Webinar on “Recent Trends in Food Processing and Preservation” organized by NIT Rourkela, India on 26th & 27th September, 2020
- ⊕ **Participation** in the National Webinar on “Opportunities in Engineering post Covid – 19” organized by Assam University, Silchar, India on 31st July, 2020
- ⊕ **Participation** in the National Webinar on “Scope of Employment Generation in Agricultural Sector in the Current Situation of COVID – 19 Pandemic” organized by ASTU Guwahati, India on 10th June, 2020
- ⊕ **Participation** in the Webinar on “World Food Safety Week – 2020” organized by JNTU Kakinada, India from 1st to 7th June, 2020
- ⊕ **Participation** in the National Webinar on “Practical Rheology for the Food Technologists” organized by HBTU Kanpur, India on 29th May, 2020
- ⊕ **Poster presentation** on “Potentiality of tashe: An underutilized fern for contribution to sustainable development goals in NER India” in the 27th Indian Convention of Food Scientists and Technologists (**27th ICFoST**) organized by Tezpur University, Tezpur, India from 30th January to 1st February, 2020
- ⊕ **Participation** in the 3rd International Conference on Food Technology 2013: “Food Processing Technologies – Challenges & Solutions for Sustainable Food Security” organized by IICPT Thanjavur, India on 4th & 5th January 2013

HONOURS AND AWARDS

Awarded **Best Paper** in the 19th International Conference on Humanizing Work and Work Environment (**HWWE 2021**)

PROFESSIONAL SERVICES

Editor for Futuristic Trends in Agriculture Engineering & Food Sciences by IIP Series

Reviewer for Journal of Food Measurement and Characterization, Springer (2)

Reviewer for Phytomedicine Plus, Elsevier (1)

WORKSHOP & TRAINING

⊖ Online National workshop on “Patent Drafting, Filing and Prosecution Framework: Indian & International Perspectives” organized by Assam University, Silchar, India on 23rd January, 2021

⊖ Training program in “Python 3.4.3” offered by Spoken Tutorial Project, IIT Bombay organized at Assam University, Silchar, India on 26th September, 2020

⊖ Workshop on “Process Standardization and Value Addition of Underutilized Fruits and Vegetables” organized by Assam University, Silchar, India from 9th to 11th September, 2016

⊖ Summer Training Programme on “Food Science & Technology” in Bio Diverse Farming Pvt. Ltd., Kolkata, India for one month in 2013

⊖ Advanced Training in “TMC on Chromatographic Methods of Analysis” in Advanced Training Institute, Chennai, India from 7th to 11th January, 2013

SKILLS & EXPERTISE

C++	MATLAB	HTML	SPSS
Origin	AutoCAD	Design Expert	Machine Design
Post-Harvest Technology		Agricultural Engineering	
Food Processing and Engineering		Drying	

PATENTS

⊖ Dash, U., Kesavan, R. K., Kondareddy, R., Nayak, P. K., Parida, B. N., & **Saikia, D.** (2023). *A SYSTEM FOR THE DEVELOPMENT OF SOLAR DRYER FOR DRYING OF AGRICULTURAL PRODUCTS* (Patent No. DE202022106428). German Patent and Trade Mark Office, Dated 02/01/2023. (Granted)

⊖ Nayak, P. K., **Saikia, D.**, Kesavan, R. K., Dash, U. (2022). *A MECHANIZED CORE CUTTER FOR ELEPHANT APPLE FRUIT* (Application No. 202231017578). Office of the Controller General of Patents, Designs & Trademarks, Dated 22/04/2022. (Published)

⊖ Nayak, P. K., Kondareddy, R., Sivakumaran, N., Kesavan, R. K., **Saikia, D.**, Parida, B. N. (2022). *A MODIFIED MIXED MODE INDIRECT SOLAR DRYER WITH PHASE CHANGE MATERIAL AND DEHUMIDIFIER* (Application No. 202231018530). Office of the Controller General of Patents, Designs & Trademarks, Dated 22/04/2022. (Published)

PUBLICATIONS

Journals

- ⊕ **Saikia, D.**, Kesavan, R., Inbaraj, B. S., Dikkala, P. K., Nayak, P. K., & Sridhar, K. (2023). Bioactive Compounds and Health-Promoting Properties of Elephant Apple (*Dillenia indica* L.): A Comprehensive Review. *Foods*, 12(16), 2993. <https://doi.org/10.3390/foods12162993>
- ⊕ Basumatary, B., Das, P., Nayak, P. K., **Saikia, D.**, & Kesavan, R. K. (2023). A Study on the Physical, Biochemical, Thermal and Textural Properties of Key Lime Fruit. *Journal of Scientific & Industrial Research*, 82(8), 892–898. <https://doi.org/10.56042/jsir.v82i08.3182>
- ⊕ **Saikia, D.**, Nayak, P. K., Krishnan, K. R., Kondareddy, R., & Lakshmi, D. V. N. (2023). Experimental investigation of modified indirect solar dryer with integrated thermal storage material for drying of dhekia (*Diplazium esculentum*) fern. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-023-25310-3>
- ⊕ Dadhaneeya, H., Nayak, P. K., **Saikia, D.**, Kondareddy, R., Ray, S., Kesavan, R. K. (2023). The impact of refractance window drying on the physicochemical properties and bioactive compounds of malbhog banana slice and pulp. *Applied Food Research*, 100279. <https://doi.org/10.1016/j.afres.2023.100279>
- ⊕ **Saikia, D.**, Kumar Nayak, P., Radha Krishnan, K., Kondareddy, R., & Lakshmi, D. V. N. (2022). Development of indirect type solar dryer and experiments for estimation of drying parameters of dhekia (*Diplazium esculentum*). *Materials Today: Proceedings*, 56, 774–780. <https://doi.org/10.1016/j.matpr.2022.02.255>
- ⊕ **Saikia, D.**, Nayak, P. K., Boruha, B., Radha Krishnan, K., Dash, U., & Bal, L. M. (2022). Effect of Pre-drying and Microwave-assisted Vacuum Frying on Elephant Apple. *Journal of Scientific & Industrial Research*, 81(09), 989–994. <https://doi.org/10.56042/jsir.v81i09.58829>
- ⊕ **Saikia, D.**, Nayak, P. K., Sivakumaranb, N., Kondareddy, R., Krishnan, K. R., & Dutta, J. (2022). Latent Heat Storage System Based Mixed Mode Indirect Solar Dryer for Drying Myrobalan. *Journal of Nano- and Electronic Physics*, 14(3), 03022-1-03022–03025. [https://doi.org/10.21272/jnep.14\(3\).03022](https://doi.org/10.21272/jnep.14(3).03022)
- ⊕ Kondareddy, R., Natarajan, S., Radha Krishnan, K., **Saikia, D.**, Singha, S., & Nayak, P. K. (2022). Performance evaluation of modified forced convection solar dryer with energy storage unit for drying of elephant apple (*Dillenia indica*). *Journal of Food Process Engineering*, 45(1). <https://doi.org/10.1111/jfpe.13934>
- ⊕ Nath, P. C., **Saikia, D.**, Debnath, S., Tiwari, A., & Nayak, P. K. (2022). Recent advances in valorization of agro-waste: a step towards sustainable development. *Indian Journal of Hill Farming*, 35(2), 73–91. <https://doi.org/10.56678/iahf-2022.35.02.12>

Book Chapters

- ⊕ Roy, B., **Saikia, D.**, Nayak, P. K., Biswas, S. C., Bandyopadhyay, T. K., Bhunia, B., & Nath, P. C. (2023). Innovations in smart packaging technologies for monitoring of food quality and safety. In Inamuddin, T. Altalhi, & J. N. Cruz (Eds.), *Green Sustainable Process for Chemical and Environmental Engineering and Science (Methods for Producing Smart Packaging)* (pp. 39–58). Elsevier. <https://doi.org/10.1016/B978-0-323-95644-4.00013-9>
- ⊕ **Saikia, D.**, Nayak, P. K., Radhakrishnan, K., Barbhuiya, J. A., & Mandal, S. (2022). Design, Development and Performance Evaluation of Foot Operated Elephant Apple Core Cutter. In D. Chakrabarti, S. Karmakar, & U. R. Salve (Eds.), *Ergonomics for Design and Innovation. HWWE 2021. Lecture Notes in Networks and Systems* (Vol. 391, pp. 605–617). Springer, Cham. https://doi.org/10.1007/978-3-030-94277-9_52

OTHER DETAILS

ORCID ID	https://orcid.org/0000-0003-0808-5400
Google Scholar	https://scholar.google.com/citations?user=QT6jLiQAAAAJ&hl=en&oi=ao
ResearchGate	https://www.researchgate.net/profile/Deepanka_Saikia2
Scopus ID	https://www.scopus.com/authid/detail.uri?authorId=57615522800
Web of Science	https://www.webofscience.com/wos/author/record/2450491
Vidwan	https://vidwan.inflibnet.ac.in/profile/346687