


Dr. Deepanka Saikia

Assistant Professor

Department of Agricultural Engineering, SoABE

 Centurion University of Technology & Management
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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

Assistant Professor

Department of Agricultural Engineering, CUTM, Odisha, India July 2023 Onwards

⊖ Teaching and administrative works

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 NE 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

SKILLS & EXPERTISE

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

HONOURS AND AWARDS

Awarded **Best Paper** (Springer) for the paper titled “Design, Development and Performance Evaluation of Foot operated Elephant apple Core cutter” presented in the 19th International Conference on Humanizing Work and Work Environment (HWWE 2021) organized by IIT Guwahati, India from 1st to 3rd December, 2021

PROFESSIONAL SERVICES

Reviewer: International Journal of Food Science, Journal of Food Processing and Preservation, Journal of Food Measurement and Characterization, Phytomedicine Plus, Brazilian Journal of Food Technology, Journal of Medicinal Plants and By-Products

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

CONFERENCE/SEMINAR

Poster/Paper Presentation

- ⊖ 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
- ⊖ 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 (Conference)

- ⊖ 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

Participation (Webinar)

- ⊖ Participation in the Webinar on “Role of Post-Harvest Technologies and Machinery in Ensuring Food security” organized by Acharya N. G. Ranga Agricultural University, Guntur, Andhra Pradesh on 26th August, 2023
- ⊖ Participation in the Webinar on “Milk Proteins and Allergy” organized by Centurion University of Technology and Management, Odisha on 5th August, 2023
- ⊖ 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

PUBLICATIONS

Journals

- ⊖ **Saikia, D.**, Kesavan, R., Sharma, M., Inbaraj, B. S., Nayak, P. K., & Sridhar, K. (2024). Development and Performance Analysis of an Automatic Core Cutter for Elephant Apple (*Dillenia indica* L.) Processing. *Foods*, 13(6), 848. <https://doi.org/10.3390/foods13060848>
- ⊖ **Saikia, D.**, Nayak, P. K., Krishnan, K. R., Kondareddy, R., & Lakshmi, D. V. N. (2024). Experimental investigation of modified indirect solar dryer with integrated thermal storage material for drying of dhekia (*Diplazium esculentum*) fern. *Environmental Science and Pollution Research*, 31, 18143–18156. <https://doi.org/10.1007/s11356-023-25310-3>
- ⊖ 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.**, 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>
- ⊖ 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>

PUBLICATIONS

Book Chapters

- ⊖ Das, D., Baro, T., Brahma, S., **Saikia, D.**, & Das, S. (2024). ENDOPHYTIC BACTERIA AND THEIR POTENTIAL APPLICATIONS IN AGRICULTURE. In D. Saikia, K. G. Singh, P. Bhutada, & S. Babu S (Eds.), *Futuristic Trends in Agriculture Engineering & Food Sciences* (Vol. 3 Book 5, pp. 23–30). IIP Series. e-ISBN: 978-93-5747-705-5, <https://www.doi.org/10.58532/V3BCAG5P1CH2>
- ⊖ 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

PATENTS

- ⊖ **Design Application No. 430226-001 (Granted)**
DE-SEEDER CUM GRANULATOR PROCESSING MACHINE. The Patent Office, Government Of India, Dated 12/09/2024.
- ⊖ **Design Patent No. 424911-001 (Granted)**
CORE CUTTER FOR FRUIT. The Patent Office, Government Of India, Dated 17/10/2024.
- ⊖ **Design Patent No. 410986-001 (Granted)**
ALL IN ONE TASHE FERN PROCESSING MACHINE. The Patent Office, Government Of India, Dated 17/05/2024.
- ⊖ **Utility Patent No. 518989 (Granted)**
A MODIFIED MIXED MODE INDIRECT SOLAR DRYER WITH PHASE CHANGE MATERIAL AND DEHUMIDIFIER. The Patent Office, Government Of India, Dated 04/03/2024.
- ⊖ **Utility Patent No. DE202022106428 (Granted)**
A SYSTEM FOR THE DEVELOPMENT OF SOLAR DRYERS FOR AGRICULTURAL PRODUCTS. German Patent and Trade Mark Office, Dated 02/01/2023.
- ⊖ **Utility Application No. 202231017578 (Published)**
A MECHANIZED CORE CUTTER FOR ELEPHANT APPLE FRUIT. The Patent Office, Government Of India, Dated 22/04/2022.

EDITED & AUTHORED BOOKS

- Θ Futuristic Trends in Agriculture Engineering and Food Sciences (Volume 3 Book 5), (2024). e-ISBN: 978-93-5747-705-5, Publisher: SELFYPAGE DEVELOPERS PVT LTD.

[Link of Edited Book](#)

- Θ Modern Biotechnology Applications in Food Technology, (2025). e-ISBN: 978-93-90660-86-5, Publisher: Satish Serial Publishing House.

[Link of Authored Book](#)

OTHER DETAILS

ORCID ID	https://orcid.org/0000-0003-0808-5400
Google Scholar	https://scholar.google.co.in/citations?user=QT6jLiQAAAAJ
ResearchGate	https://www.researchgate.net/profile/Deepanka_Saikia2
Scopus ID	https://www.scopus.com/authid/detail.url?authorId=57615522800
Web of Science	https://www.webofscience.com/wos/author/record/AAA-4071-2022
Vidwan	https://vidwan.inflibnet.ac.in/profile/346687

DECLARATION

I, **Dr. Deepanka Saikia**, solemnly declare that the information provided in this Curriculum Vitae (CV) is true, accurate, and complete to the best of my knowledge and belief. I understand that any false statements or misrepresentations made herein may lead to disqualification from any opportunity or position for which this CV is submitted.


Signature