

### **BIO-DATA**

1. Name and full correspondence address  
Dr. DIPSIKHA KALITA, Assistant Professor Grade II, School of Community Science and Technology, Indian Institute of Engineering Science and Technology (IIST), Howrah, West Bengal 711103
2. Email(s) and contact number(s): dipsikha@socsat.iests.ac.in
3. Institution: Indian Institute of Engineering Science and Technology (IIST), Howrah
4. Date of Birth: 01 March 1989
5. Gender (M/F/T): Female
6. Category Gen/SC/ST/OBC: Gen
7. Whether differently abled (Yes/No): No
8. Academic Qualification (Undergraduate Onwards)

<b>Examination Passed</b>	<b>Subject / Specialization/</b>	<b>Board / Univ.</b>
B. Sc.	Biotechnology, Zoology and Chemistry	Bangalore University
M. Tech.	Food Processing Technology	Tezpur University
Ph. D.	Food Engineering and Technology	Tezpur University

9. Work experience (in chronological order).

<b>SN</b>	<b>Positions held</b>	<b>Name of the Institute</b>	<b>From</b>	<b>To</b>
1.	DBT-Research Associate	IIT Kharagpur, India	01.07.2021	31.01.2023
2.	Institute Post-doctoral fellow	IIT Guwahati, India	20.08.2018	31.05.2021
3.	Assistant Professor (Temporary)	IIST Shibpur, India	03.02.2023	14.08.2023

10. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

Name of the Test	Name of the organization	Month & Year	Subject
Direct-Senior Research Fellowship (Ph.D. Research)	Council of Scientific & Industrial Research, Ministry of Science and Technology, Govt. of India	2014-2015	Food Process Engineering
National Eligibility Test (Professorship)	Indian Council of Agricultural Research, New Delhi, India	Aug 2016	Food Technology

11. Publications (List of papers published in SCI Journals, in year wise descending order).

1. Begum, A., **Kalita, D.**, Bhattacharya, S., & Srivastava, B. (2023). Time-dependent rheological behavior of pineapple pulp foam and its relationship with foaming properties and quality attributes of dried powder. *Journal of Food Engineering*, 336, 111208. [IF: 6.20]
2. Kamruzzaman, M., **Kalita, D.**, Ahmed, M. T., ElMasry, G., & Makino, Y. (2021). Effect of variable selection algorithms on model performance for predicting moisture content in biological materials using spectral data. *Analytica Chimica Acta*, 339390. (In press) [IF: 6.55]
3. **Kalita, D.**, Jain, S., Srivastava, B., & Goud, V. V. (2021). Sono-hydro priming process (ultrasound modulated hydration): Modelling hydration kinetic during paddy germination. *Ultrasonics Sonochemistry*, 70, 105321. <https://doi.org/10.1016/j.ultsonch.2020.105321>. [IF: 9.33]
4. Purohit, S., Barik, C. R., **Kalita, D.**, Sahoo, L., & Goud, V. V. (2021). Exploration of nutritional, antioxidant and antibacterial properties of unutilized rind and seed of passion fruit from Northeast India. *Journal of Food Measurement and Characterization*, 1-15. <https://doi.org/10.1007/s11694-021-00899-6>. [IF: 3.00]
5. Purohit, S., **Kalita, D.**, Barik, C. R., Sahoo, L., & Goud, V. V. (2021). Evaluation of thermophysical, biochemical and antibacterial properties of unconventional vegetable oil from Northeast India. *Materials Science for Energy Technologies*, 4, 81-91. <https://doi.org/10.1016/j.mset.2021.01.004>. Peer reviewed Science Direct
6. **Kalita, D.**, Bhattacharya, S., & Srivastava, B. (2018). Interrelation between thermal behaviour and pasting properties of malted rice using multivariate analysis. *Thermochimica Acta*, 670, 155-168. <https://doi.org/10.1016/j.tca.2018.10.008>. [IF:3.37]
7. **Kalita, D.**, Bhattacharya, S., & Srivastava, B. (2018). Predicting enzymatic starch hydrolysis mechanism during paddy malting by vibrational spectroscopy and multivariate calibration analysis. *Food chemistry*, 259, 89-98. <https://doi.org/10.1016/j.foodchem.2018.03.094>. [IF: 9.23]

8. **Kalita, D.**, Sarma, B., & Srivastava, B. (2017). Influence of germination conditions on malting potential of low and normal amylose paddy and changes in enzymatic activity and physico chemical properties. *Food chemistry*, 220, 67-75. <https://doi.org/10.1016/j.foodchem.2016.09.193> [IF: 9.23]
9. Hmar, B. Z., **Kalita, D.**, & Srivastava, B. (2017). Optimization of microwave power and curing time of turmeric rhizome (*Curcuma Longa L.*) based on textural degradation. *LWT-Food Science and Technology*, 76, 48-56. <https://doi.org/10.1016/j.lwt.2016.10.044>. [IF: 6.05]
10. Mishra, P., & **Kalita, D.** (2017). Assessment of pre-treatment of edible coatings prepared from gelatine and polyphenols (extracted under optimized conditions from amla fruit powder) on stability of banana chips. *Acta Alimentaria*, 46(2), <https://doi.org/10.1556/066.2017.46.2.9>. [IF:0.65]

## 12. Detail of patents.

SN	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/ Country	Status
1.	Process for manufacture of turmeric powder from raw turmeric rhizomes	Dr. Brijesh Srivastava, Baby Z. Hmar, <b>Dipsikha Kalita</b>	366731	15.05.2021	India	Granted

## 13. Books/Reports/Chapters/General articles etc.

Sl. No.	Name of Book/Monograph/Book Chapter(s)	Name of Author(s)	Year of Publication	Publisher with address
1	Innovations in Food Processing Technology/ / "Evaluation of Starch Modification by Vibrational Spectroscopy: A Case Study for Malted Rice Flour"	Dipsikha Kalita and Brijesh Srivastava	2019	New India Publishing Agency, New Delhi (ISBN: 978-93-86546-51-7)
2	Unit Operations in Food Processing/ "Atmospheric Cold Plasma and its Applications in Food	Dipsikha Kalita, Pramod K. Prabhakar and Brijesh Srivastava	2021	New India Publishing Agency, New Delhi (ISBN: 978-93-87973-13-8)

### **Conference proceedings (with ISBN number) National//International**

- **Kalita D.** Srivastava B. & Goud V. V. (2022) Modelling Mass Transfer Kinetic in Ultrasound Assisted Hydration of Cow-Pea Bean for Germination in proceeding of International Conference on Food Research, Development and Applications 2022 (InCoFReDA 2022) (Page 72) organized by the Department of Food Science & Technology, University of Sri Jayewardenepura, Sri Lanka held on 15th February 2022. [ISSN 2827-7252] [DOI: 10.5281/zenodo.6241801]
- **Kalita, D.** and Srivastava, B. “Cold Plasma Application for Decontamination of Fresh and Dried Food Products: Review” in National Conference on Recent Trends in Engineering and Technology NCRTET-2017 Organized by Tripura Institute of Technology to be held on 17-18, March 2017. Publisher: Allied (ISBN: 978-93-87380-61-5)
- **Kalita, D.** and Srivastava, B. “Effect of Germination Conditions on the Pasting Properties of Malted Low Amylose Rice of Assam” in National seminar cum workshop on Innovative Prospects in Food Processing: Integration of Engineering and Biological Sciences IPFP 2015, March 27-28, 2015, at Tezpur University, Tezpur, Assam. (ISBN: 978-93-84388-06-5) (30-36)
- **Kalita, D.** and Srivastava, B. “Physico- Chemical and Malting Properties of Low Amylose Rice of Assam” in National conference on Emerging Technology Trends in Agricultural Engineering ETAE 2014, November 07-09, 2014 at NERIST, Nirjuli (Itanagar). Publisher: EXCEL (ISBN: 978-93-83842-79-7) (265-270).

### **Conference (oral/poster) National/International**

- ❖ **Kalita, D.** Srivastava, B and Goud, V.V. “Modelling mass transfer kinetic in ultrasound assisted hydration of cow-pea bean for germination” in International Conference on Food Research, Development and Applications – 2022 organized by Department of Food Science and Technology  
in collaboration with The Association of Food Science and Technology Faculty of Applied Sciences University of Sri Jayewardenepura, Sri Lanka held on 15 February 2022. **[Oral/Online]**
- ❖ **Kalita, D.** Srivastava, B and Srivastav, P. (2022). Ultrasound-assisted hydration behaviour of kodo millet in in the International Conference on “Emerging Technologies in Food Processing-II (ETFP-2022)” organized by the Department of Food Processing Technology, Ghani Khan Choudhury Institute of Engineering and Technology, Malda, West Bengal during 25th -26th March 2022. **[Oral]**

- ❖ Begum, A, Kalita, D, and Srivastava, B.\* “Rheological and physical characteristics of pineapple puree foam and its drying behaviour” in 8th IFCON on Holistic Approaches for start-ups, Human Resource training for Agriculture and Food Industry Gemmation (HASTAG), held at CSIR-CFTRI, Mysore from December 12-15, 2018. **[Poster]**
- ❖ **Kalita, D.** and Goud, V.V. “Ultrasonication Priming Technology to Modulate Malting Process in Paddy” in National Conference on Recent Advances in Science & Technology (NCRAS 2020) organized by Assam Science & Technology University Under TEQIP III Project as a twinning activity with JNTU-Hyderabad held on 17-19 August 2020 **[Oral/ Online]**
- ❖ **Kalita, D.** and Srivastava, B. “Rheological changes of malted rice weaning formula in a simulated digestive system” in 8th International Food convention on HASTAG Holistic Approaches for start-ups, Human Resource training for Agriculture and Food Industry Gemmation held at CSIR-CFTRI, Mysore from 12.12. 2018 to 15.12.2018 **[Oral/ Offline]**
- ❖ Kalita, D. and **Srivastava, B.\*** “*Cold Plasma Application for Decontamination of Fresh and Dried Food Products: Review*” in proceedings of National Conference on Recent Trends in Engineering and Technology NCRTET-2017 Organized by Tripura Institute of Technology to be held on 17-18, March 2017. **[Oral/Offline]**
- ❖ **Kalita, D.** and Srivastava, B. “Potential of Malted Rice flour (MRF) in High Energy Density Complementary Food” in 50th Convention of Indian Society of Agricultural Engineers (ISAE) and Symposium on Agricultural Engineering in Nation building: Contributions and Challenges held at Orissa University of Agriculture and Technology from 19.01.16 to 21.01.16. **[Oral/Offline]**
- ❖ **Kalita, D.** and Srivastava, B. “Effect of Germination Conditions on the Pasting Properties of Malted Low Amylose Rice of Assam” in National seminar cum workshop on Innovative Prospects in Food Processing: Integration of Engineering and Biological Sciences IPFP 2015, March 27-28, 2015, at Tezpur University, Tezpur, Assam. **[Oral/Offline]**
- ❖ **Kalita, D.** and Srivastava, B. “Physico- Chemical and Malting Properties of Low Amylose Rice of Assam” in National conference on Emerging Technology Trends in Agricultural Engineering ETAE 2014, November 07-09, 2014 at NERIST, Nirjuli (Itanagar). **[Oral/Offline]**
- ❖ **Kalita, D.** and Srivastava, B. “Study of Physico-chemical Properties of Alginate film Containing Silver Oxide Nanocomposites and Effect of Incorporation Silver Oxide in Alginate Coating on Storage Stability of Banana in 3rd International Conference/ Workshop on Innovation in Food Processing, Value Chain Management and Food Safety held at NIFTEM campus, Kundli, Sonapat, Haryana from 10.01.13 to 12.01.13. **[Poster]**
- ❖ **Kalita, D.** and Srivastava, B. “Rheological Characteristics of low-amylose rice-wild banana based instant baby food” in 7th International Food Convention (IFCON-2013) on NSURE-Healthy Foods held at CSIR-CFTRI, Mysore from 18.12.13 to 21.12.13. **[Poster]**
- ❖ Deka, D., **Kalita, D.**, Dutta, P., Deka, J., Deb, M., and Duari, R.K. “Comparative Study between Isoflavone content of Nutrela soya chunks and Traditional Fermented Soyabean Food called

Tungrymbai” in National Seminar on Role of Bioactive Compound in Foods on Human Health “BIOFOODS held at Tezpur University, Tezpur from 14.11.11 to 16.11.11. **[Poster]**

- ❖ Participated in Food Technology “Greening food processing sector for sustainable safe food supply” and workshop on “HACCP and GMP in Food Industries and ISO Certification organized by Indian institute of Crop Processing technology held at IICPT, Thanjavur, Tamil Nadu from 30.10.10 to 31.10.10.

#### **Faculty development Programme**

1. Attended one-week ATAL-AICTE sponsored online Faculty Development Programme on **“Material Science and Engineering approaches for Food System Design (MSEAFSD-2021)”** organized by Department of Food Engineering and Technology, Tezpur University from 20-24<sup>th</sup> December 2021.
2. Attended one-week ATAL-AICTE sponsored online Faculty Development Programme on **“Emerging Food Processing Technologies: Prospects and Challenges for Food and Nutrition Security”** organized by Department of Food Engineering and Technology, Tezpur University from 4-8<sup>th</sup> January 2021.

#### **Other information**

Industrial consultation as mentor: Tholua Pratisthan Pvt. Ltd Assam since 2022

#### **Lifetime Membership:**

- AFST(I) No. AFST/LM/3-2021/TEZ/3683
- ISAE Life Membership LM-12435