

RANJU PARAJULI
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Bagmati Province, Kathmandu, Nepal

RESEARCH INTERESTS

Plant-based Foods	Functional Foods	Product Development
Indigenous Foods	Biodegradable Packaging	Sports Nutrition

EDUCATION

Department of Food Technology, Bachelor's Program (2017-2021)

- Four-year, full-time degree program
- National College of Food Science and Technology, Tribhuvan University (Score: 78.6%)

National Examination Board, Higher Education Program (2015-2017)

- Two-year, full-time intermediate program
- Hetauda School of Management and Social Sciences (Score: 75.9%)

School Leaving Certificate (S.L.C), Secondary level Program (2014-2015)

- Navodaya Shishu Sadan English Secondary Boarding School (Score: 84.6%)

RESEARCH EXPERIENCE

Bachelor's Research (Jan, 2021-Nov, 2021)

Planned and carried out research on plant-based foods: "Development and comparative study of synbiotic soy yogurt and cow milk yogurt". The examination committee consisted of Prof. Dr. Tika Bahadur Karki (Supervisor), Prof. Dr. Dilip Subba, Dr. Roman Karki, and Mr. Rakesh Kusma.

Results: Synbiotic soy yogurt is evident to have superior functional and nutritional properties with higher stability making it a healthy dairy alternative.

PROFESSIONAL EXPERIENCE

Nepal Agricultural Research Council, Lalitpur (Feb 2024- Present)

It is an autonomous organization under the "Nepal Agricultural Research Council Act- 1991" to conduct agricultural research in the country to uplift the economic level of the people.

Research Assistant

Responsible for:

- Conduct the proximate analyses of fruits, vegetables, cereals, legumes, different milk products, coffee, and spices.
- Quantify minerals in fruits, vegetables, cereals, and legumes using Atomic Absorption Spectroscopy.
- Volatile profiling of alcohol products, essential oils determination, Geosmin detection in soil samples, volatile fatty acid profiling of rumen samples using GCMS.
- Determination of different bioactive components like amino acid profiling, caffeine content, etc. using HPLC.

- Development of bio-degradable plastic packaging from the starch of Yam.
- Development of novel food products like millet-incorporated wheat products (biscuits, cake, bread, etc.), plant-based products like Kinema, Soy yogurt etc.
- Write experimental research papers and use different reference citation software like Endnote, Mendeley, Zotero, etc.
- Preparation of malt extract and protein isolate powder from the malted spent grain.
- Preparation of meat incorporated Kinema pickle and prepare meat patties incorporating different proportions of kinema.
- Study the drying kinetics of large cardamom and perform volatile components profiling using GC/MS.
- Compile data in Google Sheets and perform statistical analysis of obtained data using SPSS, Mini-tab, Python, and R-Programming.

Baliyo Nepal Nutrition Initiative, Lalitpur, Nepal

(Oct, 2022- July, 2023)

Baliyo Nepal Nutrition Initiative is an NGO working to uplift the nutritional sector in Nepal.

Junior Research Officer

Responsible for:

- Assisting senior research officer in developing nutritional labeling and fortification guidelines in cooperation with the Department of Food Technology and Quality Control (DFTQC) in Nepal.
- Led day-to-day R&D activities related to food security and nutrition.
- Developed diverse food formulations for industrial applications.
- Assisted in the preparation of different food standard drafts & nutritional profiling of various food items.
- Organized specialized food production training sessions for women from various provinces.
- Equipped more than 100 schoolchildren with knowledge of food safety practices, food hygiene, and sanitation.
- Designed and executed research: "Preparation of OFSP cookies and its physico-chemical analysis" in collaboration with NEBICO Group of industries and the National Food Research Division of Nepal Agricultural Research Council (NARC)
- Conduct an anthropometric survey of children below 5 years, pregnant and lactating mothers in all wards of Kathmandu with the involvement of local level health post representatives

Food Technology and Quality Control Office, Hetauda

(Sept 2021-Nov 2021)

Food Technology and Quality Control Office under the Department of Food Technology and Quality Control (DFTQC) of the Ministry of Agriculture and Co-operatives (MOAC) is a government organization working to ensure the availability of safe, quality, and nutritious food to Nepalese people.

Internship in the Research and Innovation Department

Responsible for:

- Adulteration check, data keeping, and making reports.
- Handling all sorts of chemicals along with microbial analysis of different food items. Learn about food items and industries' license processing and renewal.

- Assigning quality of raw materials, in products, and final products under the supervision of a food laboratory assistant.

PRESENTATIONS

Parajuli, R. (2023). *Development and comparative study of synbiotic soy yogurt and cow milk yogurt*. [Poster Presentation]. Nepal Food Scientists and Technologists Association (NEFOSTA), Kathmandu, Nepal

TRAINING /CERTIFICATIONS

- ISO/IEC 17025:2017 Internal Auditor Training, a four-day certificate program by Accreditation Education Research & Scientific Service Center (AERSSC)/ Foundation for Quality (India), FQI on June 27- July 1, 2024.
- National Campaign on Data Analysis and Scientific Documentation from May 12-18, 2024, at Tri-Chandra Multiple Campus, Tribhuvan University, Nepal.
- ISO 22000:2018 Internal Auditor Training by Vibrant Consult Pvt. Ltd., Kathmandu, Nepal on 27th & 28th June, 2022.
- Participated in a “Leadership Development Masterclass” organized by Leadership Academy Nepal on June 22 & 23, 2023 in Kathmandu.
- Workshop on Loss Assessment in Potato and Dairy Supply Chain organized by the College of Applied Food & Dairy Technology, Nepal on 7th December, 2023.
- Workshop on Capacity Building for Food Technologists organized by Nepal Food Scientists and Technologists Association (NEFOSTA) on April 16, 2023 in Kathmandu, Nepal.

AWARDS

- First position in the poster presentation at the 9th National Conference on Food Science and Technology on June 29th-30th, 2023 by Nepal Food Scientists and Technologists Association.
- Best thesis award (2023) in recognition of outstanding project work in Bachelor of Food Technology awarded by the National College of Food Science and Technology.
- Best student appreciation award (2017-2021) for academic excellence (4 awards) in Bachelor of Food Technology granted by the National College of Food Science and Technology.
- The second position in Redefining and Empowering Food Technologist (REFT local Hero 2020) organized by Thought for Food Foundation (TFF) on Oct. 10th, 2020.
- First place in the article competition on the topic Role of Food Technologists during the Pandemic, organized by Nepal Food Technology Student's Association on 9th July 2018.
- Academic Excellence Award (2016) in recognition of outstanding meritorious achievement in the SLC examination provided by PABSON, Nepal.

APPOINTMENTS & MEMBERSHIPS

- Program Head of Food Convo Program 2021 (Virtual bi-weekly program that organizes different talk programs and webinars related to food, agriculture, climate change & other burning issues).
- General Member of Nepal Food Scientists and Technologists Association (NEFOSTA) since 2022.
- Elected as club treasurer of Leo Club of Kathmandu Siddhi for the Lionistic Year 2022/23.
- Elected as club president of Leo Club of Kathmandu Gaurav for the Lionistic Year 2023/24.
- Volunteer lead in 9th National Conference on Food Science and Technology organized by

Nepal Food Scientists and Technologists Association (NEFOSTA), Kathmandu (June 29th-30th, 2023)

- Volunteer in Future Smart Crops Exhibition held by the Food and Agriculture Organization, Nepal (FAO) on January 1st, 2024.
- Volunteer in Fruit and Vegetable Food Safety: Evidence to Support Policy Action, A National Policy Consultation on April 18, 2024, at Kathmandu, Nepal organized by Feed the Future Innovation Lab for Food Safety, Agriculture and Forestry University, Nepal Food Scientists and Technologists Association and Tennessee State University.
- Volunteer in Translating Research into Action: Opportunities for Evidence-Based Scaling of Agri-food Systems Innovations on April 22 and 23, 2024 at Kathmandu, Nepal organized by Feed the Future Innovation Lab Council USAID.
- Volunteer in Progress Towards Sustainable Healthy Food Systems in South Asia on April 24 at Kathmandu, Nepal organized by Feed the Future Innovation Lab USAID and National Academics, USA.
- Elected as Regional Coordinator of Leo District Council 325K, Nepal for the Lionistic Year 2024/25.

LANGUAGE

English (IELTS: 7), Nepali, Hindi

SKILLS

- Creative & Problem solving
- Teamwork and Leadership
- Product Development & Market Research
- Good Communication & Multitasking
- Computer skills- MS Word, MS Excel, SPSS, GenStat, Endnote
- Python, R-Programming, Octave
- AAS, GC/MS Handling

REFERENCES

Prof. Dr. Tika Bahadur Karki
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