

Lakshmi S.

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Profile

Lakshmi S. is an experienced Food Scientist and Nutrition educator, dedicated to inspiring the next generation of health-conscious professionals. She holds a Master degree in Food Science and Nutrition from the University of Mysore, India and secured the highest GPA Manjula Suma award. During this time, she applied her expertise in micro-encapsulation for iron fortification, food product development, in-vitro analysis, nutrient and anti-nutrient analysis and sensory evaluation. As well, conducted a survey to study the nutritional status of adult women. This has equipped her with the fundamental knowledge and skills needed to excel in the field. Further research experience obtained while working for well-known research institutes like Central Food Technological Research Institute and Defence Food Research Laboratory has encouraged to utilize the knowledge in conducting research studies, development of new food products, sensory and chemical analysis, pilot studies, bulk production of food products, analysis of data. Her work in the area has been recognized through publications in peer-reviewed journals.

In addition to the research work, she has also gained valuable teaching experience as a Food Science and Nutrition instructor at Yuvaraja's college, India. Food Science, Food Preservation, Food Hygiene and Sanitation, Quality control of Food, Food Analysis, Human Nutrition, Nutritional Biochemistry, Human Physiology, etc., are the various courses taught. She has handled both practical and theory classes during the tenure. Excellent verbal and written communication abilities, developing innovative educational materials and programs that are tailored to the needs of students are the few abilities developed during three years of teaching Undergraduate and Post graduate courses. She has also mentored and advised students on research projects and career opportunities. She has been associated with the Department of Food Science and Nutrition, Karnataka State Open University (KSOU), Mysuru, India, as a resource person. Where, she is involved in conducting personal contact classes, development of study material and practical manuals for various courses offered by the department. With a strong background in research and teaching, she possesses a deep understanding of the complexities of food science and nutrition.

Overall, she is highly skilled, dedicated and enthusiastic professional with a proven track record of success in both research and teaching, who is committed to making a positive impact in the field of Food Science and Nutrition.

Work experience

- **Lecturer:** Department of Food Science and Nutrition, Manasagangotri, University of Mysore, Mysuru, India
Duration: December 2023 – till date
Roles and responsibilities: Conducting theory and practical classes for postgraduate courses, hosting various departmental activities, invigilation during practical and theory examinations
- **Lecturer:** Department of Food Science and Nutrition, Yuvaraja's College, Mysuru, India
Duration: September 2019 - October 2022
Roles and responsibilities: Conducting theory and practical classes for both undergraduate and postgraduate courses, preparing practical manuals, mentoring student research projects and publications, hosting various departmental activities, invigilation during practical and theory examinations
- **Senior food product developer:** Nutri Paradise Foods, Nutra- Phyto Incubation Centre, CSIR-Central Food Technological Research Institute, Mysuru, India.
Duration: 20 July 2018- 03 August 2019
Roles and responsibilities: Designing and development of new food products such as Clinical formulations, Functional foods and vegan foods; conducting pilot studies; chemical and sensory analysis of food; storage studies; bulk production of various food products; data compilation and analysis; training food handlers; designing food packages, writing scientific articles
- **Project assistant:** Department of Fruit & Vegetable Technology, Defence Food Research Laboratory (DFRL), Mysuru, India.
Duration: 16 December 2016 -19 July 2018
Project title: High altitude rapid induction and acclimatization strategies
Roles and responsibilities: Development of fruit-based high calorie bars and vegan foods, conducting pilot studies, chemical and sensory analysis of food, storage studies, bulk production, data compilation and analysis, research article publication
- **Project assistant:** Department of Flour Milling, Baking and Confectionary technology, CSIR-Central Food Technological Research Institute, Mysuru, India.
Duration: 19 September 2016 - 06 December 2016
Project title: To improve functioning and finished product quality of Roller Flour Mill
Roles and responsibilities: Chemical and functional property analysis of wheat flour, formulation of wheat germ based fermented and baked products; their analysis, storage studies, data compilation and analysis, assisting in research article publication
- **Research Fellow:** Department of Studies in Food science and Nutrition, University of Mysore, Mysuru, India.
Duration: September 2015- June 2016
Project title: Development of disease specific functional foods and clinical trials in target groups
Roles and responsibilities: Analysis of various commercial clinical formulations, standardization of extraction methods for phyto-pigments, Freeze drying method for

extraction of pigments, development of functional food using various bioactive compounds, iron fortification, in-vitro studies, chemical and sensory analysis, storage studies, data, research article publication

Other Academic related experience

Resource person: Department of Food Science and Nutrition, Karnataka State Open University (KSOU), Mysuru, India

Duration: October 2019 - Present

Roles and responsibilities: Conducting theory and practical classes; Preparing study materials, practical manuals and question papers; valuation of examination scripts

Academic Qualification

Master of Science (Food Science and Nutrition)

Institute: University of Mysore, Mysuru, India.

Thesis topic: Bioavailability of microencapsulated iron salts in different food matrices

Year of completing: 2015

Bachelor of Science (Chemistry, Sericulture, Biotechnology)

Institute: Yuvaraja college, Mysuru, India.

Year of completing: 2013

Additional Qualification

Qualified Karnataka state eligibility test for Lecturer/ Assistant professorship (**KSET**) in December 2015 in the subject **Home Science**, India.

Research Publications

- 1) **Lakshmi S.**, A.K. Pandey, N. Ravi, O.P. Chauhan, Natarajan Gopalan, and R.K. Sharma (2017). Non-destructive Quality Monitoring of Fresh Fruits and Vegetables. Defence Life Science Journal, 2, 2, 103-110, DOI : 10.14429/dlsj.2.11379.
- 2) Seema Siddiqi, **Lakshmi S.**, and Asna Urooj (2017). Iron Bio-accessibility and Nutritional Attributes of Selected Disease Specific Commercial Formulations. Defence Life Science Journal, 2, 2, 206-211, DOI : 10.14429/dlsj.2.11360.

Papers presented

Oral Presentation

- **Lakshmi S.**, Divya Prakash J. and Jamuna Prakash, “Bioaccessibility of microencapsulated iron salts in different food matrices” at 47th Annual National conference of Nutrition Society of India with the theme Nutrition and Agriculture – The Connect and the Disconnect, 9th-10th October 2015, held at National Institute of Nutrition, Hyderabad.

Poster Presentation

- Seema Siddiqi, **Lakshmi S.** and Asna Urooj, “Iron bioaccessibility and nutritional attributes of selected disease specific commercial formulations” at 48th National conference of the Nutrition Society of India held at the St. John’s Research Institute, St. John’s National Academy of Health Sciences, Bangalore.

Conferences attended

- 1) National seminar on “Emerging health issues across the life stages”, 6th-7th March 2014, held at Manasagangotri, University of Mysore, Mysuru, India.
- 2) National conference on “Changing profile of malnutrition in India”, 9th January 2015, held at Manasagangotri, University of Mysore, Mysuru, India.
- 3) 103rd Indian Science Congress with the theme “Science and Technology for Indigenous development in India”, 3rd-7th January 2016, held at Manasagangotri, University of Mysore, Mysuru, India.

Workshops attended

- 1) Workshop on “Practical aspects of enteral nutrition therapy in critical illness” conducted by Indian dietetic association- Mysore chapter, Abbott Nutrition Pvt Ltd and Columbia Asia Hospital Mysore, on 18th March 2016, Mysuru, India.
- 2) Workshop on “Parenteral nutrition management: Issues and concerns” organised by Indian dietetic association- Mysore chapter in collaboration with Fresenius Kabi Pvt Ltd and Apollo BGS Hospitals, Mysore on 21st May 2016, Mysuru, India.
- 3) Workshop on “Nutrigenetics and nutrigenomics: current status and implications for personalized nutrition” organised by the Department of Food Science and Nutrition, Yuvaraja’s college in association with Soukhya foundation on 14 February 2020, Mysuru, India.

Conference, Seminars and workshops organized

- 1) Part of the organizing committee in 5th Women’s Science Congress, Mysuru on the theme “Science and technology for indigenous development of women in India” held at the University of Mysore on 5th and 6th January 2016.
- 2) Part of workshop on “Post-harvest technologies of fruits & vegetables for rural farmers & entrepreneurs” conducted by DFRL at Karimuddanahalli, Hunsur, Haradanahalli, Chamrajnagar and Hosabhooteanooru.
- 3) National workshop on “Utkrushta arogyakkagi hannu mattu tarakarigalu” organised by the Department of Horticulture in collaboration with Karnataka state science foundation- Mysuru chapter and Yuvaraja College, Mysore on 05 March 2022.

- 4) “SWASTYA- 2022” One day seminar conducted as part of World Health Day organized by the Department of Ayush in collaboration with Yuvaraja’s College and Arogya Bharathi on 21 April 2022.

Technical skills and competences

- Chromatographic techniques include Paper chromatography, Thin-layer chromatography, Column chromatography, High-performance liquid chromatography
- UV-Vis Spectrophotometer and colorimetric measurements
- Spray drying and freeze drying methods for food processing
- In vitro bioaccessibility experiments
- Laboratory analysis of food (Moisture, Fat, Protein, Fiber, ash, Silica, Minerals, vitamins, Polyphenols, Flavonoids, acidity, sugars, Pigments, Density, Water holding capacity, Solubility, fat holding capacity, gelatinization, emulsification, Non-enzymatic browning, Antioxidant assay-DPPH)
- Designing and development of new food products such as Clinical formulations, Functional foods and vegan foods
- Experience in the bulk production of various food products (Fruit juices, Energy bars, Ready to cook- millet, fruit and vegetable based products, Ready to eat products, Ready to drink beverages, Dehydrated products, Hurdle technology products, Osmodehydrated products) and Food plant Maintenance.
- Trained in sensory evaluation of foods
- Clinical experiments such as bleeding time, Clotting time, analysis of urine (Sugar, Protein) and blood (Hemoglobin, Blood grouping), in-vitro enzymatic activity

Equipment and Instruments handled- Texture analyzer, Color analyzer, Water activity meter, Atomic Absorption Spectroscopy (AAS), Brookfield visco meter, Freeze drier, Kjeldal unit for protein estimation, Soxhlet apparatus, Centrifuge, pH meter, Brix meter, Fruit pulper, Vegetable dicer, Fruit peeler, Juice extractor, Vacuum frier, Hydraulic press, Pulverizer, Impulse sealer, vacuum sealer and Continuous sealer.

Professional Memberships

Indian dietetic association- Life member

Personal Information

Date of birth : 23 July 1992
Linguistic abilities: English, Kannada, Hindi
Marital status : Married
Nationality : Indian
Current location : India

