

CURRICULUM VITAE

Name: Dr.RINJU R

Email:rinju.64@gmail.com

Contact:+91 9645240146

Objective:

Seeks an exciting and challenging position in an organization that aims to conduct more researches that can improve the way of life of people around the world and wherein I can put my experience, education, and skills, as a biochemist, to ultimate use.

Academic Qualifications:

- Ph.D. Biochemistry. Year: 2013-2020, Department of Life Sciences, University of Calicut, Kerala.
- M.Phil. Biochemistry. Year: 2011-2013, Department of Life Sciences, University of Calicut, Kerala. CGPA:8.5(A grade)
- M.Sc. Biochemistry. Year: 2008-2010, Department of Life Sciences, University of Calicut, Kerala. CGPA:7.55(A grade)
- B.Sc.Biochemistry.Year:2005-2008, University of Kerala, Kerala. Marks:87.8%

Course Profile & Project Details:

- **Course:**Ph.D.Biochemistry

Project Title: “Studies on the production of value-added products from the pineapple plant (*Ananas comosus*) agro-waste”.

Research Competence:

My Ph.D. research was designed to investigate the production of value-added products from the pineapple plant agro-waste. Large amounts of agro-waste are generated from pineapple farm through agro-industrial activities each year, and these materials were underutilized and disposed off in the environment without any treatment, or burnt. This massive amount of agricultural waste can be converted into value-added products like starch and animal feed. As a part of this, extraction and characterization of starch from the pineapple plant parts were carried out. Characterization studies of pineapple stem starch including X-ray diffraction, Nuclear magnetic resonance spectroscopy, Fourier transform infrared spectroscopy, Scanning electron microscopy, Differential scanning calorimetric analysis and rheological studies were carried out. Characterization of starch samples after different heat treatments and at different growth levels of the plant, proximate analysis and anti-nutritional analysis of different parts of the pineapple plant were also studied.

- **Course:**M.Phil.Biochemistry

Optional subjects: Biochemical techniques and Research methodology.

Specialization: Macromolecular characterization.

Project Title: “Isolation & Partial Characterization of Pineapple Plant (*Ananus comosus*) Stem Starch”

Research Competence

Isolation of starch from the stem of pineapple plant and the characterization studies on pineapple stem starch including, amylose estimation, turbidity measurement, water binding capacity measurement, fractionation based on solubility, phase contrast microscopy, scanning electron microscopy and fourier transform infrared spectroscopic analysis.

- **Course:** M.Sc.Biochemistry

Specialization: Theoretical discourses in Biochemistry with Specialization in Cancer Biology, Toxicology and Clinical Biochemistry.

Project Title: “Antioxidant activities and stability studies of *Myristica fragrans* Houtt”

Research Competence:

Myristica fragrans Houtt. is an important spice having various biological properties. The components like essential oil, lycopene, oleoresin, starch, amino acids etc. are responsible for its biological activity. The change in these components and also the antioxidant activity after four month storage, in three different packaging conditions (packed under vacuum, under air and packed in polythene cover) were studied. In addition its antioxidant activities was determined using the estimation of ascorbic acid, total flavone content, total antioxidant activity, total reducing capacity, H₂O₂ radical scavenging activity and by the identification of phenolic acids using thin layer chromatography.

- **Course:** B.Sc.Biochemistry. **Optional subjects:** Zoology & Chemistry.

Professional Experience Summary:

Assistant Professor in Biochemistry: Ma'din Arts & Science College, Malappuram, Kerala.

Responsibilities: Teaching Biochemistry theory & practical for graduate (BSc) students.

Achievement:

Second position in MSc Biochemistry course (CCSS Scheme).

Technical experience

- XRD, FTIR, SEM, XRF and DSC Analysis
- Extraction and estimation of carbohydrates, proteins and lipids and enzyme assays
- Paper, thin layer, and HPLC techniques
- Proximate analysis of plant samples
- Anti-nutrient analysis of plant samples
- Biochemical analysis of blood samples
- Experience in handling phase contrast and fluorescence microscopes, lyophilizer, soxhlet apparatus, CHNS-O analyzer, and the fibre analyzer

Publications, Presentation & Workshops

Publications	
1	Rinju Radhakrishnapillai and Balakrishnan-Saraswathi Harikumar-Thampi, “Characteristics of starch extracted from the stem of pineapple plant (<i>Ananas comosus</i>)-an agro waste from pineapple farms”, Brazilian Archives of Biology and Technology, 2021, 64, 1-14.
2	Rinju R and B S Harikumar Thampi, “Characterization studies on starch extracted from the stem of pineapple plant (<i>Ananas comosus</i>) at different growth stages”, Bioscience Biotechnology Research Communications, 2019, 12 (3), 623-630.

Presentations			
Sl.No.	Name	Institute	Date
1	Presented a poster entitled Proximate and anti-nutrients analysis of pineapple plant (<i>Ananas comosus</i>) stem and leaves	ICMR-National Institute of Nutrition, Hyderabad	November 2018
2	Presented a paper entitled “Characterization of starch from an agro-waste-the pineapple plant stem” in 30 th Kerala Science Congress	Govt. Brennen College, Thalasseri	January 2018
3	Presented a paper entitled “XRD Studies on pineapple plant stem starch at different growth stages” in a national seminar on “Recent Trends in Food Technology- Processing Preservation and By product Utilization”	SAFI Institute of Advanced Study, Vazhayur	January 2018
4	Presented a paper entitled “Thermal and Rheological Studies on Starch Isolated from Pineapple Plant Stem-An Agro-waste from Pineapple Farms” in an International Conference on Recent Trends in Agriculture, Veterinary and Life Sciences-2017”	Carmel College for Women, Nuvem, Goa	December 2017
5	Presented a paper entitled “XRD studies on Starch isolated from different regions of pineapple plant stem” in an international Seminar on environment, society and economy-AMBIENTE-2017	St. Joseph’s College for Women, Alappuzha, Kerala	December 2017
6	Presented a poster entitled “Rheological properties of pineapple plant stem starch and their comparison with corn starch” in a national seminar, conducted by Inter University Centre for Genomics & Gene Technology	University of Kerala, Kariavattom	March 2017
7	Presented a poster in National Carbohydrate Conference (CARBO-XXVII)	CSIR-CFTRI Campus, Mysore	December 2012

References:

Dr. B S Harikumar Thampi Associate Professor in Biochemistry Department of Life Sciences University of Calicut Mob:+91 9446439655 bsharik111@gmail.com	Dr. Gayathri Devi.D. Assistant Professor in Biochemistry Department of Life Sciences University of Calicut Mob:+91 9447712539 gayathrianith@gmail.com
---	--