

B.S. Chanukya

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Career Summary

A Food Process Engineer with accomplished 10+ yr experience in various locations across the globe in areas of new product development, process/ product design and optimization, food facility management, physical/ chemical characterization of food, sensory evaluation, quality control, scientific / technical writing and documentation with solid background in practical & theoretical aspects in these areas

Skills & Competencies

- Process / product design, optimization & evaluation
- Quality control supervision of food production facility
- New product development from concept to marketing
- Production facility management, supervision, training & documentation
- Knowledge of food safety certifications (BRC, HACCP, Kosher & ISO) and Audit process
- Technical writing, research data collection & evaluation
- Application of analytical techniques in food characterization & analysis
- Process design & scale-up (lab - pilot scale and production)
- Filtration membrane design, synthesis & fabrication for selective separation
- Interpersonal skills with ability to work collaboratively with all levels of organization
- Problem solving ability in real time production process
- Flexible and results-oriented approach to work with multiple and constantly shifting priorities
- Superior communication skills, including written, verbal, and presentation
- Self-starter, strategic thinker, and customer focused
- Strong computer skills, proficiency in Microsoft office (Excel, Word, Power Point and Outlook)

Work Experience

Industrial Experience

QA Specialist (full time, permanent)
Waterside International / CT Bakery

September 2020– Present
Mississauga, ON, Canada

- Quality control of entire production process, from raw material receiving to final product specification to meet customer and internal quality standards
- Investigating root cause, prepare internal /external CAR, solving QA related issues in real-time
- Check and correct process deviations during production to meet customer quality standards
- Work in collaboration with production supervisor and plant manager to resolve and improve overall quality aspects of the plant (short and long term changes)
- Conduct training of factory personnel on GMP, Allergens, SQF, process deviations etc. on regular basis

Product Development Specialist (contract)
Modhani Yogurt

February - April 2020
Brampton, ON, Canada

- New Product Development from concept
- In-house shelf life test and quality evaluation of developed products
- Scale up from Lab to pilot and then to production scale
- Assist the management in developing formulas and recipes

I have developed the following products at Modhani from scratch (some from concept) with limited facilities and on tight time-frame. Some of these were being purchased and are now produced in-house. The following developed products are currently in the Market:

- All natural Fruit puree (used in fruit-on-the-bottom Greek yogurt)
- All natural and unique spice fortified Fruit Jams with antioxidants and aroma/ flavor of selected spices
- Natural colored and flavored butter-milk (Lassi) of various flavors

Senior Research Associate (full time, permanent)

January 2015 - November 2016

Azista Industries Pvt. Ltd (sister company of Hetero Drugs)

Hyderabad, India

This was a start up organization, with limited work force. I had multiple roles in the organization

- Established food dehydration research facility in Hyderabad, India, suitable for R&D on innovative food dehydration techniques
- Lab to production scale-up, overseeing of production, quality control & raw material procurement
- Research on new product development– associated with premier research institutes in India and experts overseas to develop novel non – oil fried fruit snacks
- Developed the following food products from concept to marketing that are currently successful in the Indian Market (pictures in LinkedIn profile)
 - Karela (Bitter gourd) biscuits and snacks
 - Non oil fried puffed fruit/vegetable chips and snacks
 - Heat dried Mango chips and leather

Research Assistant III (contract)

December 2009 - September 2010

Central Food Technological Research Institute

Mysore, India

Development & scale-up of large scale algal race way ponds, design of novel photo-bioreactors for algal production

- Designed prototype of photo-bioreactor for enhanced micro-algal growth using cost-effective materials that worked as efficiently and replaced an expensive glass module
- Designed and developed large scale algal pond (10000 lt) for production of *Spirulina* biomass that was to be used for production of high protein biscuits and pills
- Successfully scaled-up *Spirulina* algae from lab (500 mL) to pilot (6000 lt) scale in raceway ponds into producing several kilograms of algal biomass per week

R&D Experience

Postdoctoral Research Associate (contract, full time)

October 2018 - December 2019

State Key Lab. of Separation Membranes & Processes, Tiangong University

Tianjin, China

Forward osmosis membrane design, synthesis and application for fruit juice concentration

- Designed , synthesized novel forward osmosis membrane that enhanced flux rates with reduced fouling – i.e., faster juice concentration rates in lesser time frame
- Testing and characterization of membrane and process using state-of-art analytical techniques
- Optimized process for long term continuous and efficient apple juice concentration using newly developed membrane

Assistant Professor (contract, full time)

November 2016 - August 2018

Faculty of Chemical & Food Engineering, Bahir Dar University

Bahir Dar, Ethiopia

Teaching, research, writing-implementing projects and research publications

- Initiated, supervised and successfully completed three projects for the Govt. of Ethiopia
- Member of curriculum development board for designing curriculum for food processing program
- Supervised post graduate student's thesis, thesis published in a peer reviewed international journal

Senior Research Fellow (full time)
Central Food Technological Research Institute

April 2011 – July 2015
Mysore, India

Performed R&D on novel membranes for non-thermal fruit juice concentration and selective separation from liquid mixtures, as well as on extraction and application of natural colorants in food products

- Assisted several entrepreneurs in technology, process know-how and knowledge transfer
- Technical writing and publications of research data in peer reviewed international journals (currently have 11 international publications and 1 book chapter)
- Developed products and processes (natural food colorant, non thermal self preserved conc. fruit juice)
- Supervised graduate & post graduate student's thesis, published in a peer reviewed international journals

Other Work Experiences

Customer Loyalty Specialist (full time)

July – September 2020

S&P Data

Toronto, ON, Canada

- Addressing customers technical concerns/needs, working through the problem with the customer
- Working in a timely fashion to meet all established deadlines
- Maintaining high level competitive and product knowledge to provide quality service
- Accurately document customer interactions within the appropriate systems
- Apply techniques offered in training for continuous improvement towards sales and performance targets.

Certifications

- Safe Food Handler (Oct 2020)
- WHMIS (Dec 2020)
- Root Cause Analysis (Nov 2020)
- Managing Food Safety (Dec 2020)
- First Aid CPR/AED (Mar 2021)
- Heat Exhaustion (Nov 2020)

Projects Completed

Industrial and Research Projects

- Integrated solar & heat induced drying method for off-season preservation of mango fruit slices (2018)
- Design & development of manually operated sugarcane extractor machine for the rural community/ farmers in Ethiopia to produce beverage and Jaggery (2017)
- Vacuum microwave puffing for texture enhancement of low temperature dried fruit slices/ chips (2015-16)
- De-alcoholization & extraction of organic acids from food mixtures by Liquid Emulsion Membranes (2012-15)
- Non thermal concentration of liquid foods by Forward Osmosis: process optimization, long term feasibility study
- Enhanced extraction & non thermal concentration of natural colorants & it's application in food products (2014)
- Delivery of bioactive molecule Beta-Carotene from natural source by microencapsulation (2007)

Qualifications

- **Doctor of Philosophy** (Food Engineering) 2015
Central Food Technological Research Institute / Academy of Scientific & Innovative Research
A United Nations University & Institute of National Importance, India
- **Master of Technology** (Chemical Eng.) 2010
Visvesvaraya Technological University
- **Bachelor of Engineering** (Bio-technology) 2008
Visveswaraiah Technological University

[Canadian Equivalent (WES): Earned doctorate, Master's degree and Bachelor's degree (four years), respectively]