

Research Fellow/Engineer (Food analysis, processing, and digestibility) - DJ8 Singapore Institute of Technology

Direct Link: https://www.AcademicKeys.com/r?job=234477
Downloaded On: May. 21, 2024 10:55pm

Posted Apr. 11, 2024, set to expire Aug. 11, 2024

Job Title Research Fellow/Engineer (Food analysis, processing, and

digestibility) - DJ8

Department

Institution Singapore Institute of Technology

Singapore, , Singapore

Date Posted Apr. 11, 2024

Application Deadline Open until filled

Position Start Date Available immediately

Job Categories Graduate Student

Academic Field(s) Chemical/Petroleum

Bioengineering (all Bio-related fields)

Job Website https://careers.singaporetech.edu.sg/cw/en/job/498637/research-

fellowengineer-food-analysis-processing-and-digestibility-dj8

Apply By Email

Job Description

Research Fellow/Engineer (Food analysis, processing, and digestibility) - DJ8

Job no: 498637

Department: Food, Chemical and Biotechnology

Contract type: Contract

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As a University of Applied Learning, SIT works closely with industry in our research pursuits. Our research staff will have the opportunity to be equipped with applied research skill sets that are relevant to industry demands while working on research projects in SIT.

The primary responsibility of this role is to deliver on an innovation research project where you will be part of the research team to investigate the impact of emerging food processing on anti-nutrient factors, allergens, and consequentially the interaction with human nutrition.

Key Responsibilities:

- Participate in and manage the research project with Principal Investigator (PI), Co-PI and the research team members to ensure all project deliverables are met.
- Undertake these responsibilities in the project:
 - i. Develop methodology to quantify different ant-nutrient factors and supervise junior researchers to generate data for publication.
 - ii. Lead in-vitro digestibility study of food ingredients/products and the released profile of amino acids, peptides, sugars, polysaccharides, and fatty acids.
 - iii. Support internal and external researchers for research activities; arrange sample collection for anti-nutrient factor and allergenicity studies.
 - iv. Lead and conduct bench-top and pilot plant food processing involving extrusion to produce samples, with the support of the team members.
 - v. Plan, organize and carry out experiments and trials in the food pilot plant and chemical labs to achieve the objectives.
 - vi. Manage and complete the project by presenting the findings in conferences or meetings with industrial collaborator, submitting timely data & documents, and purchase chemicals or consumables.
 - vii. Consolidate the data in order to generate sufficient scientific evidence for meetings slides, publication, and report in conferences.
 - viii. Engage and communicate with industry collaborators for deployment of innovative technologies/solutions and visit their facilities to support the design of a conceptual pilot plant suitable for scale-up production.
- Carry out Risk Assessment, and ensure compliance with Work, Safety and Health Regulations.
- Coordinate procurement and liaison with vendors/suppliers.
- Work independently, as well as within a team, to ensure proper operation and maintenance of equipment.



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Job Requirements:

- Have a degree in Food Science and Technology, Biotechnology, Chemistry, Pharmaceutical Engineering. Possessing a PhD degree will be advantageous.
- Have relevant competence in the areas of food analysis, including enzyme inhibitory activity; mass spectrometry; amino acid, sugar, fatty acid, and polyphenol profiling; ELISA; SDS-PAGE; SEC-MALS.
- Past research experience in food nutrition, food chemistry, food polymers.
- Experiences in macromolecular docking, analysis, and foodomics will be bonus
- Knowledge of functional properties of protein, and food hydrocolloids will be bonus.
- Able to communicate with the teammates and industrial collaborators to share key findings, seek supports, or conducting pilot plant trials.

Key Competencies

- Show strong initiative and take ownership of research work for publication.
- Conduct individual projects with minimal supervision and drive to completion.
- Self-directed learner who believes in continuous learning and development with projects suitable for scale-up production and commercialization.
- Proficient in using statistics software, technical writing and oral presentation
- Possess strong analytical and critical thinking skills
- Able to build and maintain strong working relationships with people within the university and external companies.

Apply now

Advertised: 11 Apr 2024 Singapore Standard Time

Applications close: 31 Dec 2024 Singapore Standard Time

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.



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