



INAUGURATION OF IFSTSL

Sri Lanka was one of the few countries that did not have an institute dedicated to Food Science & Technology. The Institute of Food Science & Technology Sri Lanka (IFSTSL) was inaugurated on 29th October 2011 through efforts of the Sri Lanka Food Processors Association, with participation of academics, scientists and industrialists in the food sector. IFSTSL gives an opportunity for Sri Lanka to strengthen its economy, industry and human capacity through combined efforts of everybody interested, dependant and serving in the food industry in Sri Lanka. IFSTSL plans to provide opportunities for everybody in the food industry to strengthen their knowledge and skills, to become a recognizable force in the national economy, to link with the international counterparts and provide an internationally competitive environment for the food industry.

MESSAGE FROM THE HON. MINISTER

The agricultural industry in Sri Lanka is fast expanding into a modern export oriented industry of processed foods, targeting specific markets in the developed world, and moving away from the traditional approach of exporting raw or semi-processed agricultural produce. This expansion requires a new approach at all levels of the industry, the production base, the processing units, marketing and a strong commitment to fall in line with modern regulatory approaches aimed at high levels of food quality and safety globally. The new approaches taken by the food importing countries have demanded the industries to take up assurance of food quality and safety along the food chain starting from the farm. This demands a much more organized and concerted efforts by all stakeholders of the food industry, where deeper understanding of scientific principles, application of new preventive methods and exposure to ever changing regulatory approaches targeted at health concerned consumers.



Against this background, the setting up of the Institute of Food Science and Technology Sri Lanka marks an important milestone for the industry. I understand that this institute brings together the industry - the engine of growth, the scientists -the knowledge base to fuel the industry-, and the marketing sector, which works through new openings towards sophisticated markets aiming increased export earnings. I am confident that this combination of resources from different sectors in Sri Lanka provides the most suitable approach to upgrade the knowledge base in the industry, and view the new global regulations that hands over the responsibilities of food quality and safety to the producer, to be internationally competitive more intelligently in the national effort to increase food exports.

In this effort, I, as the Minister of Agriculture assure every assistance to make the approaches of the Sri Lanka Institute of Food Science & Technology meaningful, active and focused towards meeting international standards in our food produce, especially exports. I wish them all the success.

Hon. Mahinda Yapa Abeywardena
Minister of Agriculture

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF GOVERNORS

Food industry is one of the fast developing industries in the world with new innovations, new regulations, and new markets presenting new products which are appealing to ever demanding consumers. The need to maintain high levels of food production and preserving them to meet the increasing populations is a problem that is faced by all Governments. In the developed world, the food industry work with very close collaboration of those engaged in generation of new knowledge, strengthening the competency of manpower, those who ensure safety of foods through regulatory and certification processes and those who eventually market the produce globally. An Institute dedicated to Food Science & Technology was a long felt need, which Sri Lankan scientists made efforts to establish couple of times in the past.



The Sri Lanka Food Processors Association took the initiative and successfully established the IFSTSL providing a common platform for those engaged in generation and dissemination of knowledge, conversion of knowledge into marketable products, ensure quality and safety of the produce and finally presents them to the consumers with a note of confidence. I have no doubt that this conglomerate of Sri Lankans would work together to make the Sri Lankan food industry to an internationally competitive source of income for the country.

Prof. Upali Samarajewa

MESSAGE FROM THE PRESIDENT OF IFSTSL

Food and beverage industry is given high precedence in the development of policy framework of the Government of Sri Lanka among the other industries of the industrial sector. The developments in the sector focusing the promotion of international food trade necessitate planning with a broader outlook to support all the parties involved in the food industry in Sri Lanka.



The Institute of Food Science & Technology Sri Lanka, is a newly formed organization with the mandate of enhancing the quality and capacity of national processed food industry, involving the professionals in the processed food and supportive industries, academics disseminating the required knowledge and the others who involved or wish to involve in the development of food industry in Sri Lanka. Sri Lanka Food Processors Association paved the path for initiating the institute, identifying the long felt need of having a national institute dedicated for Food Science & Technology and food industry in Sri Lanka. At the inception, the institute wishes to strengthen the awareness and the capabilities of the food handlers, which is the key to ensure quality and safety of food, enhance public awareness on quality and safety issues of food and help or advise to solve the problems faced by the Sri Lankan food processors.

Active and dedicated membership is required in achieving the goals of the institute and I invite those who work for the development of Food Science & Technology and food sector to join us. I wish, the IFSTSL would be a leading and dedicated institute for the purpose and be recognized as an integral component of Sri Lankan food sector to compete successfully in the trade.

Dr. Niranjan Rajapakse

OBJECTIVES OF IFSTSL

- To create an apex body representative of professionals involved with the processed food industry of Sri Lanka.
- To uplift the level of professionalism within the food processing sector in the country.
- To benchmark and promote best practices beneficial to the national processed food industry.
- To interact at an advisory level with state bodies engaging the Government and consumer representation in all national policies and regulatory matters.
- To serve as a forum for professionals to exchange ideas, conduct research and promote innovation.
- To conduct educational programs, training programs, award certificates and engage in any knowledge infusing activities which benefit the food sector.
- To develop, nurture and promote the national image and the competitiveness of the food processing sector.
- To pursue co-ordination and interaction with Non-Governmental Organizations, International Funding Agencies and fellow professional bodies in furtherance of these objectives.
- To undertake all matters incidental or conducive to the attainment of these objectives.

MESSAGE FROM THE PRESIDENT OF SRI LANKA FOOD PROCESSORS ASSOCIATION

As the current President of Sri Lanka Food Processors Association (SLFPA) and a member of the Board of Governors of IFSTSL I would like to take this opportunity on congratulating the Institute of Food Science & Technology Sri Lanka on publishing its 1st news letter.



The SLFPA is proud to be a part of the 1st Institute of Food Science & Technology Sri Lanka, as this institute will prove its importance in enhancing the standard in quality achievable in our food science & technology environment.

With the availability of modern technology at our dispense, correct food standards can be achieved as technology helps such institutes in achieving results which are of high quality resulting in the consumer being able to buy produce which is beneficial in terms of their health. Hence correct standards of living can be practised.

Therefore, I together with the Executive Committee and fellow members of the SLFPA would conclude by wishing this institute all the very best in making their 1st news letter a success and we the SLFPA will be their guiding force in all their endeavours.

Mr. Hamilton Diaz

Profoods/Propack Awards - 2011

1. Best Stall Food & Beverage Category - Edinborough Products (Stall # 41/42)
2. Best Stall Packaging Category - Mead Lee Trading Co. (Stall#25/26)
3. Best Stall Machinery Category - CMC Engineering (Stall #73/74/79)
4. Product with Most Attractive Packaging - *Nutri Cereal & Rice Cereal of Ceylon Biscuits LTD* (Stall #21/22)
5. Most Innovative Product *Tea Pod* (instant Tea Tablet) of Shammin Natural Products (Stall #133)
6. Most Commercially Viable Research Project *Palmayarah Noodle* of Sri Jayewardenepura University (Stall #135)
7. Most Commercially Viable Research Project *Kohila Jam* of Sabaragamuwa University (Stall #136)
8. International Participation - Best Stall - Alfalavel India (Stall #156/158)
9. Eco-Friendly Packaging on a Product - For Cashew packed in Arecanut leaf container - *Royal Cashew Company*. (Stall #150)

Sri Lanka to witness an unparalleled experience - "from farm to kitchen" at Profoods/Propack and Agbiz 2012 Exhibition

Sri Lanka will witness the eleventh edition of Profoods/Propack and Agbiz exhibition on the 6th 7th and 8th of July at the Sirimavo Bandaranaike Memorial Exhibition Center in Colombo. The event will harness the most innovative, modern and influential products in the processed food, packaging and beverage industry bringing together a wide array of stakeholders within the industry into one common platform. This year the event will be in conjunction with the agricultural sector and will revolve around the theme, "From Farm to Kitchen".

Profoods/Propack and Agbiz 2012 will provide all the stakeholders within the industry a unique and unparalleled experience in to the inner workings of the food and beverage industry. The event will showcase the latest products in the local processed food industry, sampling of consumer favourites, innovations and technology development in packaging, modern agricultural machinery & services, processed food hygiene education among many other facets of the industry. This year the organizers have added new features at the event by having specialized concurrent events such as "Halal Food Asia" and "Poultry, Livestock and Dairy Asia" pavilions. These new events catering to the ever demanding consumer market for quality and safe food.

The organizers are of the opinion that the event will provide stakeholders of all industries a central gathering point which will give them the ability to witness a cross section of facets within the industry. The current growth in the economy and the need for a comprehensive event that covers all angles has been met by Profoods/Propack during the last decade.

The event will cater to different audiences but will most necessarily involve all stakeholders within the industry from the farmer to the ultimate consumer. Modern seeding methods, innovative irrigation systems for farming, harnessing of the right crop, irrigation systems and all other facets of the agricultural evolution will be of great importance to those of the farming and plantation industry. The event will provide supermarket chains, hotels and other category buyers an ideal platform, to witness first hand essence of the products that are to be offered the consumer. The industrial buyer will also be given an unparalleled and unique experience to witness packaging processes and systems, machinery, quality assurance systems under one roof within the expanse of the exhibition.

Currently the exhibition has sold over 180 booths with only around 40 booths remaining. Special overseas pavilions from the SAARC region will be in Colombo during this 3 day show. Profoods/Propack and Agbiz 2012 will be the ideal launching pad for new products and services within the industry giving the manufacturers and producers an ideal opportunity to witness consumer reactions and feedback in the most personalized and effective form. The event will include competitions, cookery demonstrations and a wide array of events during the three days to give the participants and visitors an experience which in its true sense would be incomparable. The mega event will be a 'one of a kind' exhibition that would essentially give all stakeholders of the industry -from the manufacturer to the ultimate consumer and experience that would be in unparalleled.

SALMONELLA AND FOOD

Salmonella is a disease causing micro-organisms commonly found in the intestinal tract of humans and animals and it passes out with fecal matter. The microorganism could get in to water, soil, to the skin of animals, the meat of animals at slaughter, to the eggs during laying and to foods through the hands of food handlers, if proper hygienic measures are not practiced. It is the cause of disease described as salmonellosis, typhoid and paratyphoid affecting humans and animals on ingestion of contaminated foods. It causes diarrhea, cramps and fever in infected humans leading to deaths, if not attended in time. The term *Salmonella* is used to describe a variety of subgroups of the microorganism with varying virulence, differences in primary hosts on which they live and their preferences for different habitats. Fleshy food or those of animal origin are the most common habitats of this micro-organisms. Literature describes more than 2000 varieties of *Salmonella* which are distinguished from each other by responses to test using serum from blood.

Outbreaks of diseases associated with *Salmonella* occurring through contaminated foods are common both in developed and developing countries and more prominently under tropical climatic conditions. In the USA on the average 40,000 cases are reported with about 600 human deaths annually. Closer examination of the root causes of the *Salmonella* problems and some of the steps required to avoid contamination are of interest to the consumers as well as the producers and handlers of foods.

There is a well documented case in England where spread of typhoid was found to be associated with a single individual preparing fast foods in kiosks. Based on documented evidence the person responsible was legally prohibited from handling foods. The lady moved in to a different job and later migrated to Canada. After many years she decided to go back to her old job of working in food kiosks in Canada. In investigating into incidence of typhoid spreading with fast foods in Canada, the origin was found to be the same person and she was prohibited again to get employed in food handling business. The case is documented in the literature as story of "Typhoid Mary". This highlights the importance of medically examining persons handling food to avoid employing silent carriers of *Salmonella*. Silent carriers carry the microorganism without exhibiting symptoms of the disease.

Sri Lanka had the misfortune of almost totally losing the export of desiccated coconut to England in early 1950s when *Salmonella* was detected in chocolate toppings of a well known brand using desiccated coconut from Sri Lanka. This led to modification of the conventional "desiccated coconut mills" to modern food processing plants with high sanitary standards, and all the produce are screened for *Salmonella*.

Almost all chicken eggs are contaminated outside the shell at laying or on ground by *Salmonella*. The Minister of Health in England made a public statement that all eggs in the market are contaminated with *Salmonella* in late 1980s. The sales crumbled; millions of eggs were bulldozed; scientists appeared in electronic media and educated the public. It cost the job of the Hon. Minister. Proper understanding of science and practices is essential with the food industry. Eggs shells are not an edible component in the human diet.

Two factories processing two types of foods had a common problem of *Salmonella* contamination on regular basis in spite of their maintaining high hygienic processing conditions. In both cases a "night watchman" kept inside the factory with flash light detected the common culprit. In the first factory a rat visits the food cutters and in the second factory a rat visits the ready-to-packed food in the night. The problem was in the design of the premises.

In 2008, there was a problem of *Salmonella* in tomatoes originating from tropical areas in and around USA. The sale of tomatoes of certain origins was banned. The convenient food markets withdrew salads. Investigations revealed that jalapino pepper was also contaminated and there were incidents of cross contaminations into other agricultural produce at market racks too. Handling and cleaning of the produce at the origin was found to be the cause.

In 2009 there was publicity on *Salmonella* in a reputed brand of peanut butter in USA spreading into 43 States and causing death of 6 persons. This led to massive recalls on peanut butter, as well as all foods prepared using butter. Investigations by the food authorities revealed that the affected plant had low compliance on Good Manufacturing Practices (GMP) and has disregarded test reports indicating presence of *Salmonella* in their products. Earlier there had been reports on food residue built up, and storage of products on the floor in the same plant. The producer of the contaminated peanut butter was fined US\$ 14.6 million by Federal Authorities. Another incidence of contaminated pistachio nuts also was reported in USA in the same year.

More recently there was a court case in Sri Lanka where a seller was prosecuted for selling raw prawns containing *Salmonella*. After expert evidence the court was convinced that *Salmonella* is destroyed during cooking above 70 °C, all natural habitats of prawn get mixed up with fecally contaminated surface water and it is not realistic to expect *Salmonella* free prawns in the same way as *Salmonella* free eggs. The food regulatory systems all over the world has regulations on *Salmonella* for cooked frozen *Salmonella* meant to be consumed after mild heat treatments, and there are no regulations

for raw prawns as they are heat treated before consumption. This requires greater attention in processing of fatty foods.

The cases discussed above indicate that the entry of *Salmonella* in the food chain could occur at the raw material stage, processing or up to serving to consumers. Its control could only be achieved through attention at all stages of the food chain.

The decisions on food safety should be taken on facts based on sound science, clear observations, and deep understanding of the realities. This is why everybody needs a good knowledge on modern concepts of food science.

YOUR TECHNICAL QUESTIONS ANSWERED

Q1. What is melamine and why was there a problem of melamine in milk?

A: Melamine is a synthetic chemical substance used in production of melaware. Payment for the milk producers are made based on the fat and protein contents to avoid dilution of milk. Melamine is nitrogen containing cheap chemical compared to milk proteins. The unscrupulous sellers started adding water to milk to make easy money, and they used melamine to increase the nitrogen content in the milk so that analytical results reflect milk to be adequately rich in proteins. The problem arose because melamine causes kidney problems. More than 300,000 persons were affected and 600 died due to melamine adulterated milk and milk products. This led to worldwide regulatory measures and severe punishments to the persons in China who were engaged in the adulteration of milk with melamine.

Questions sent to the IFSTSL office by the members of the institute would be referred to subject specialists and explanations will be provided in the next issue of the news letter
- Editor



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DISCUSSION WITH THE HON. MINISTER OF AGRICULTURE

Several members of the IFSTSL met with Hon. Mahinda Yapa Abeywardena, Minister of Agriculture to explain the objectives and the future plans of the newly formed institute.

VACANCIES IN FONTERRA BRANDS LANKA



Fonterra Brands Lanka (Pvt) Ltd is the largest FMCG company in Sri Lanka. We are headquartered in New Zealand with a global presence that spans over 145 countries. In order to keep pace with our constantly evolving product and service standards, we benchmark the highest standards in manufacturing processes and quality control in the world.

We are looking for exceptional people looking to build their career in one of the most advanced manufacturing environments utilizing state of the art technology. This is an opportunity for outstanding people to be experienced to the latest processes and the most cutting edge technology in the FMCG industry.

Assistant Shift Operations Manager

Purpose of the job
Responsible to lead the shift operation by planning and organized the resources available to achieve the company objectives in order to perform effectively, the incumbent will need to:

- Ensure on-going implementation of systems, processes, controls & monitoring mechanisms to achieve & sustain 100% compliance to Health & Safety, sustainability & environment protection related expectations in the powder plant & adherence to product & process quality / food safety related expectations in the powder plant.
- Manage and allocate the available manpower within the plan in an effective manner to achieve the daily and weekly with the support of production planning function.

The Individual
The ideal candidate should have the following qualification & skills

- Bachelor's Degree in Engineering (preferable in Mechanical)
- 3 years experience in a production environment.
- Proven leadership.
- Excellent oral & writing communication skills in English & Sinhala.

Shift Operations Executive

purpose for the job
Responsible to lead the assigned shift operations by executing the production as the plan and organized the resources in an effective and efficient manner. In order to perform effectively, the incumbent will need to:

- Ensure implementation of processes, systems and monitoring mechanisms to achieve production target, 100% product quality, food safety and H & S manufacturing best practices.
- Ensure that all maintenance activities are executed efficiently and effectively whilst maintaining all the equipments as per the Standard Operations Procedures.
- Analyse the development of milk production plan for Liquid plan.

The Individual
The ideal candidate should have the following qualifications & skills:

- HND/NDT in powder Electrical Engineering or equal & skills qualifications.
- Bsc. Degree in Electrical Engineering is preferable.
- 2year experience holding a similar position in a manufacturing environment.
- Computer literacy (MS Office and Auto CAD).
- Good oral and writing communication skills in English and Sinhala

Executive - Engineering Projects

Purpose of the job
The incumbent will assist in identifying and executing engineering projects and assist in new improvement initiatives.

- To assist in implementation of all Engineering projects by performing activities such as planning, execution, post implementation review etc.
- To assist Fonterra Brands Lanka's short & long-term Capital expenditure programs (such as planning, budgeting, execution, post implementation review & cash spend monitoring/control etc) in partnership with relevant stake holders.
- To assist improvement initiatives by activities such as feasibility studies, engineering drawings, technical evolutions, budgeting etc.

The individual
The ideal candidate should have the following qualifications & skills:

- BSc degree in Mechanical/Civil/Electrical Engineering.
- Certification in project management is preferred.
- 2-3 years work experience holding a similar position in a manufacturing environment.
- Sound interpersonal skills.
- Proven leadership.
- Computer literacy (MS Office, MS Project and Auto CAD).

Assistant Manager - Quality Assurance

Purpose the job
Implement, maintains and improve Quality & Food Safety systems to ensure compliance to fonterra, ISO 9001 & 22000 (HACCP) and Microbiology standards.

- Continuously improve quality standards process control (SPC) and Operational Excellence (OE) tools.
- Standardize Quality systems document across functions.
- Lead, conduct and report Quality/Food safety audits of plan, processes and suppliers.

The Individual
The ideal candidate should have the following qualifications & skills:

- Bsc in Science, Microbiology or equal qualifications.
- Msc in Food science or Microbiology discipline is preferred.
- 4-5years experience holding a similar position in a manufacturing environment.
- Exposure to international quality systems, quality auditing in a large manufacturing environment will be an added advantage.
- Excellent oral and writing communication skills in English & Sinhala.
- Proven leadership.

If you are keen to build your career with a high performing team, please send in your comprehensive resume within 7 days of this advertisement.
Talent & Reward manager, Fonterra Brands Lanka (Pvt) Ltd, 100 Delgado Road, Biyagama. Email: careers@fonterra.com

This space is available for the vacancies in the food industry.



IFSTSL MEMBERSHIP

IFSTSL membership is open to all those who are engaged in the food industry. The following membership categories are available for individual applicants and corporate bodies.

- Fellow members
- Associate members
- Student members
- Corporate members
- Associate corporate members
- Interim members

Information and the application forms for membership could be obtained from:

Address : Mrs. Sandya Fernando
IFSTSL Office: No. 1, 1/1, Anderson Road, Colombo 5.

Telephone : 011 7548770, 011 4920206, 011 2678607-9

E-mail : info@ifstsl.org