

2014

வார்டீக வார்டால
வருடாந்த அறீக்கை
ANNUAL REPORT



கார்டீக வாகீதீக அாடகநாட

கைத்தொழில் தொழில்நுட்ப
நீருவனம்

**INDUSTRIAL TECHNOLOGY
INSTITUTE**

Annual Report 2014



Industrial Technology Institute

Your partner in Technological and Industrial Growth

Contents

ITI Quality Policy	2
Act & Legislation	3
Mandate	3
Vision	3
Mission	3
Board of Management	4
Organizational Structure	5
Senior Management	6
Chairman's Message	7
Executive Report	11
Performance Highlights	17
Quality Infrastructure	21
Accelerating Industrial Technology Development	23
Benchmarking for Competitiveness	25
Monitoring and Mitigating Pollution	27
Technology for Human Welfare and Socio-economic Upliftment	30
Conferences, Seminars, Training Programmes & Workshops	31
Capacity Building & Productivity Development	32
New Initiatives	36
Corporate Awareness	40
Information for Industry	41
Awards and Recognition	43
Social, Welfare and Religious Activities	47
Publications, Presentations & Patents	49
Human Resources	56
Executive Staff	59

ITI Quality Policy

“The management of the Industrial Technology Institute is unreservedly committed to maintain the ISO 17025 Quality Management System for the Testing and Calibration services and ISO 9000 Quality Management System for the entire Institute, in keeping with the National Quality Policy, thus providing customers with services of the highest professional standards.

All ITI staff has been made fully aware of the Quality Systems operated within the Institute and are therefore committed to provide services in keeping with the International Standards.

The entire staff of the Institute endeavors to achieve the highest level of customer satisfaction and continual improvement of services by meeting the requirements of the Quality Systems as per ISO 17025 for the Technical Services & ISO 9000 for Quality Management”

Act & Legislation

The Industrial Technology Institute (ITI) is a statutory board, which came into existence on 01 April 1998 by virtue of the Science and Technology Development Act No. 11 of 1994. ITI is the successor to the Ceylon Institute of Scientific and Industrial Research (CISIR), which was established in 1955. The ITI that operates as a market-oriented partner to its clients and stakeholders is a wholly owned Institute of the Sri Lankan Government with its own Board of Management and functions within the purview of the Ministry of Technology and Research.

Mandate

The Science and Technology Development Act No. 11 of 1994 that came into effect on 01 April 1998 describes our mandate as follows:

“The Technology Institute shall be demand driven. The object of the Technology Institute shall be to elevate the level of technology in Sri Lanka to the level required for rapid industrialization.”

Vision

To be a centre of excellence in Scientific and Industrial Research for national development.

Mission

To conduct innovative R&D and provide internationally competitive technical services to accelerate industrial development for the benefit of the people of Sri Lanka.

Board of Management

Chairman

Prof W Abeyewickreme
Professor in Parasitology
Faculty of Medicine, University of Kelaniya

Members

Dr G A S Premakumara
Director General/CEO, ITI Ex-officio (Up to August)

Dr Muditha Liyanagedara
Acting Director General, ITI Ex-officio (Since August)

Mr Asela Iddawela
Vice President, Sustainable Development & External Affairs
Holcim (Lanka) Ltd

Dr N V Chandrasekharan
Senior Lecturer, Department of Chemistry
Faculty of Science, University of Colombo

Prof Sudantha Liyanage
Dean, Faculty of Applied Sciences
University of Sri Jayewardenepura

Dr Shantha Amarasinghe
Senior Lecturer, Department of Chemical & Process Engineering
University of Moratuwa

Mr Mahendra Jayasekera
Managing Director
Lanka Tiles PLC

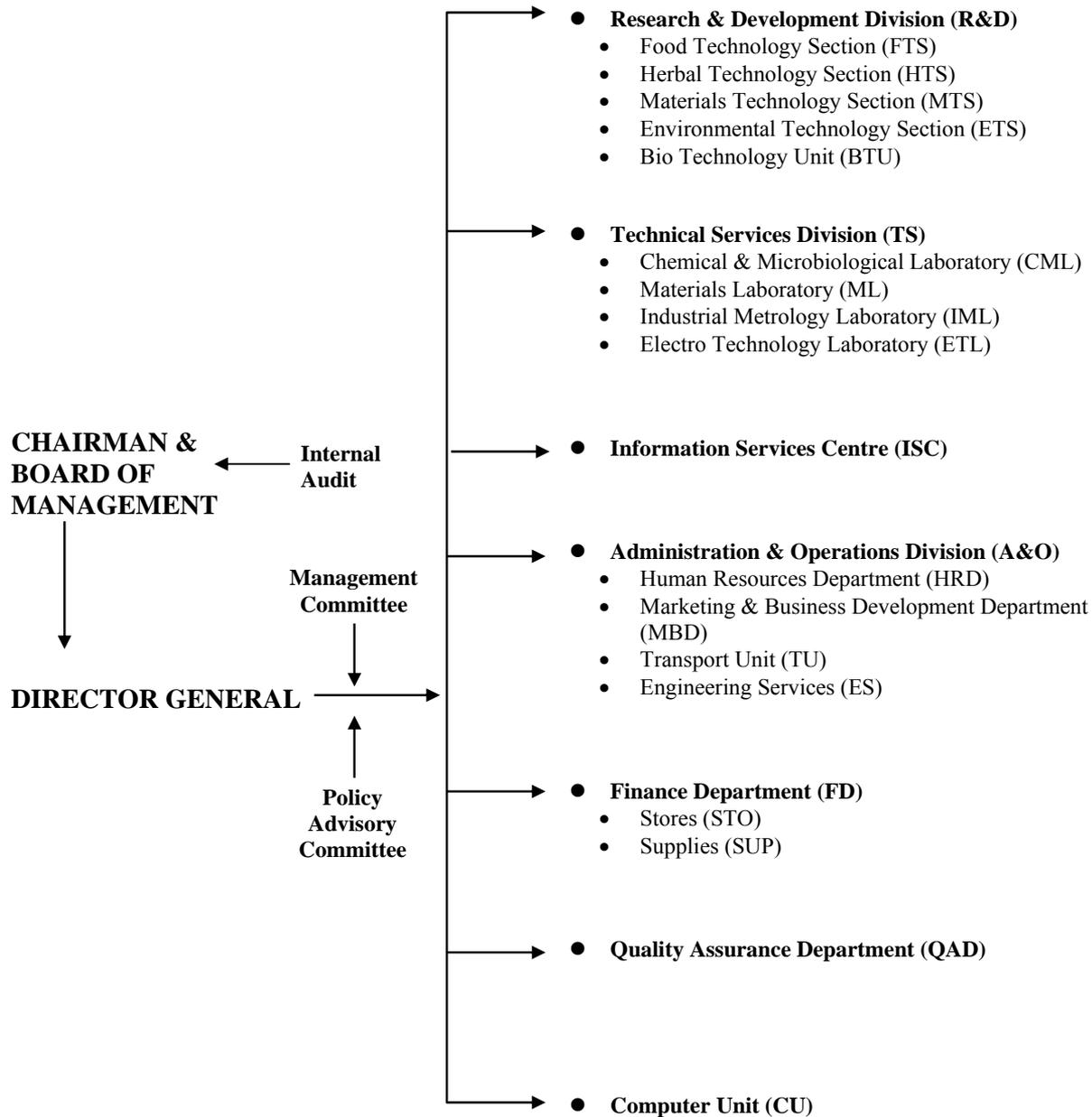
Mr W D Jayasinghe
Additional Secretary
Ministry of Industry and Commerce

Ms S M Rajapaksha
Assistant Director, Department of Public Enterprise,
Ministry of Finance & Planning

Secretary to the Board

Ms. Renuka Jayatilleke
Institute Secretary

Organizational Structure



as at 31st December 2014

Senior Management

DIRECTOR GENERAL

Dr. Sirimal Premakumara (up to August)

DIRECTOR GENERAL (Acting)

Dr. Muditha Liyanagedara

ADDITIONAL DIRECTOR GENERAL, TECHNICAL SERVICES

Mr. A.S. Pannila

ADDITIONAL DIRECTOR GENERAL, RESEARCH & DEVELOPMENT

Dr. J.K.R.R. Samarasekera

ADDITIONAL DIRECTOR GENERAL, ADMINISTRATION & OPERATION

Mr. K.A.S.P. Kaluarachchi

RESEARCH & DEVELOPMENT

Dr. Ilmi G.N. Hewajulige

Senior Deputy Director, Food Technology Section

Senior Deputy Director, Herbal Technology Section

(Vacant)

Dr. I. R. M. Kottegoda

Head, Materials Technology Section

Mr. W. R. K. Fonseka

Head, Environmental Technology Section

Head, Bio Technology Unit

(Vacant)

TECHNICAL SERVICES

Mr. J.K.A.B. Wijegunasekara

Head, Chemical & Microbiological Laboratory

Senior Deputy Director, Materials Laboratory

(Vacant)

Dr. W.M.S. Wijesinghe

Head, Industrial Metrology Laboratory

Mr. R.M. Weerasinghe

Head, Electro Technology Laboratory

QUALITY ASSURANCE DEPARTMENT

Mr. H.P.P.S. Somasiri

OIC, Quality Assurance Department

INFORMATION SERVICES CENTRE

Senior Deputy Director, Information Services Centre

(Vacant)

FINANCE DEPARTMENT

Mr. Lalin Gunaratne

Senior Deputy Director, Finance Department

INTERNAL AUDIT

Chief Internal Auditor

(Vacant)

ADMINISTRATION & OPERATION

Mrs. Hiranthi Kathriarachchi

Senior Deputy Director, Administration & Human Resources

Mrs. Manori Wijemanne

Senior Deputy Director, Marketing & Business Development

Mr. A.S. Arachchie

Head, Engineering Services

INSTITUTE SECRETARY

Mrs. A M K R Jayatilake

Chairman's Message

The year 2014 dawned with many challenges to the Institute. The foundation for certain projects that were laid during the last year had to be completed and new foundations had to be laid.

The Institute's earnings grew by 24.6M in 2014 to Rs. 232.1M compared with Rs.207.5M in 2013. When compared with the increased of income in the past three years, a percentage of 30% and 12% in the year 2013 the year 2014 respectively records a recordable income increase of 12% as opposed to the previous year's increase in the income.

The Technical Services Division continued to be the biggest earner with its income improving to Rs. 185.7M compared with Rs. 169M the previous year. Income from Contract Projects rose substantially from Rs. 19.1M in 2013 to Rs. 23.9M in the year 2014.

Dr Sirimal Premakumara, who was placed in the position of Director General of the ITI w.e.f 4th January 2013 resigned from his duties on August 15, 2014. Dr Muditha Liyanagedara was placed in this position as Acting Director General of ITI with effect from August 27, 2014, while performing his functions as the Director General of NASTEC.

For the first time in the history of ITI the President of Sri Lanka H.E Mahinda Rajapaksha paid a visit to the institute on the 19th of July 2014 and participated in the Nutrition Walk and Food Fair organized by the Institute in collaboration with the National Nutrition Secretariat under the theme "Science & Technology for Food Safety and Security". This occasion will go down the history of ITI as it was the first visit by a President to the institute.

In order to celebrate the "World Science Day" which fell on 10th November 2014 ITI together with the Ministry of Technology and Research and other professional organizations organized many activities. This included a trade fair, a Nutrition walk and demonstrations. Many school children, school leavers and general public participated in this event and gained immense experience and scientific knowledge. This event was instrumental in bringing fellow industrialists and the Scientists to a common platform. The researchers of ITI actively participated in the World Science Day programme by organizing a Seminar for student inventors and they were afforded an opportunity to display their award winning inventions.

The NRC Mega Project Grant coordinated by ITI to eliminate Dengue resulted in ITI together with other counterpart institutions commencing entomological surveillance and other operational research components under the NRC TO 14/04.

Apart from conducting awareness programs among staff on prevention of dengue infection by keeping the surrounding clean without any potential breeding habitats for dengue mosquitoes ITI was involved as a stakeholder in a dengue vector control target oriented mega project utilizing the funds granted by the National Research Council.

The first coordination and consultative meeting of the IAEA-TC Project RAS 5066 for promoting the Sharing of Expertise and Infrastructure for Dengue Vector Surveillance towards Integration of the Sterile Insect Technique with Conventional Control Methods among South and South East Asian Countries was held from 5 – 9 May 2014 at ITI with the patronage of Hon. Patali Champika Ranawaka, Minister of Technology and Research. Scientists from other countries i.e China, Philippine, Thailand, Indonesia, Malaysia, Brazil, Trinidad and Tobago, Pakistan and Austria participated in this event.

At the request of the Central Environmental Authority (CEA), a comprehensive research proposal was submitted by ITI to the CEA for finding new alternative methods to control mosquito menace in Sri Lanka which was approved for funding.

During the year 2014 ITI successfully filed seven applications for Patents and the Certificates are awaited.

The Institute successfully completed the pilot scale trials regarding the low cost clay filter for removal of fluoride and heavy metals such as Cd/As from water which is also capable of removing the said contaminants even in the hard water. The technology transfer and commercialization process were initiated and it is scheduled for the filters to be distributed by government and non-governmental organization in affected areas from January 2015.

After many years, all the Administrative appointments and the Senior Deputy Director appointments for all the sections were completed.

The GIZ – SME Development Project which is a collaboration between ITI and Deutsche gesellschaft für internationale Zusammenarbeit GmbH (GIZ) in order to increase the outreach of the transfer of technology developed by ITI to encourage establishment of SMEs by local entrepreneurs in the North, East and Uva was initiated .

As a step towards enhancing the customer services, steps were taken by ITI to initiate a courier service by which ITI customers would receive their testing reports at their door step in double quick time.

A pool of consultants comprising of the experts who have retired from ITI was established in order to advise and assist ITI in its affairs.

ITI was successful for the second time in the bid placed for supply and the technology transfer of 20 Rain Gauges to the NBRO.

The IML Section of ITI, for the first time in Sri Lanka, successfully fabricated a tape calibration system (10m) which was launched for the industry on May 27, 2014. This system would assist the industry in calibrating of measuring tapes up to 10 meters .

The long awaited revisions to the Scheme Of Recruitment (SOR) was attended to after many rounds of consultations and discussion with the staff and the unions and the revised SOR would be now submitted for the approval of the Department of Management Services.

The Cadre requirement for the present year was to a greater extent completed.

Many pending appeals on the promotions and placements of staff members due to delays in obtaining approval for the SOR were sorted and implemented for the benefit of the employees and the institute. The E Bar examination, which is a requirement for internal promotions of the institute, was held utilizing the internal expertise for the first time during the year 2014.

The Herbal Technology Section of ITI commenced a new Project where herbal gardens were established in schools using the expertise available at the Herbal Technology Section of ITI. This new concept was initiated in order to introduce medicinal plants to school going children and to create an awareness among them on herbs and other medicinal and conventional plants of Sri Lanka. This programme was also aimed at educating school children on the medicinal values of the plants. Several school programmes in this regard have been conducted in schools within and outside Colombo.

ITI continued to carry out its functions independently when a critical problem arose on an issue regarding suspected environmental pollution caused by the latex industry in Hanwella (in addition to earlier investigations on Rathupaswala environmental pollution issue). The unanimous requests by all parties concerned in this incident that ITI should be the testing institution, would be regarded as a proof towards reliability and dependability placed on ITI.

Regards the Modern Research and Development Complex (MRDC) at Malabe, the Administration Block, the Food Pilot Plant and the five floors of the Bio Technology Building were completed. The Treasury approval was granted for a further Rs. 750Mn for the completion of the remaining work required to shift a part of ITI to the MRDC, Malabe.

The Institute is still unable to attract and retain quality staff, both scientists and non scientist; largely because government salaries and terms of employment for staff are not competitive. Nevertheless many initiatives like research allowance (even for projects funded by Treasury Grants) and distribution of research earnings and Royalty payments have been implemented but there are hurdles to overcome.

The Institute continued with its performance incentive scheme and incentive scheme for scientists. Employee relationships have been good.

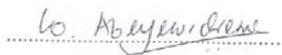
ITI also maintained its international stature by providing services to laboratories overseas and by conducting training programmes on quality management in microbiological analysis for foreign scientists.

The Scientists of ITI attached to the Food Technology Section have assisted in the areas relating to quality measuring of food such as capacity building for food industry, technology transfer on special food products and entrepreneurship development in many parts of the country, including the North and East.

I take this opportunity to appreciate the co-operation extended by the highly qualified and experienced members of the Board of Directors.

This opportunity is also taken to thank Dr Muditha Liyanagedera, on behalf of the Board, for accepting the post of Actg Director General of ITI amidst his busy schedule as the Director General of NASTEC, and for his assistance extended to the Institute during his tenure as the Actg Director General of the institute.

I also thank the Management and Staff of the Institute for their efforts in not only helping to maintain ITI's position as the premier industrial research institute in the country but also their endeavors in building up confidence in industry on the capabilities of the Institute as a reliable research partner.



Prof. W Abeyewickreme
Chairman

Executive Report

ITI continues to play a major role in assisting Sri Lankan industry by providing technology and internationally accredited technical services. Some of the outcomes and outputs of R & D activities and technological services during the year are under this review.

Technology Transfers

As a remedy for the wide spreading chronic kidney disease in the North Western Province, ITI developed low cost red clay water filter with the capability of removing heavy metals were distributed among residents of the area at ITI in the presence of Honourable Chief Minister of North Western Province, Dayasiri Jayasekera and Minister of Technology and Research, Patali Champaka Ranawaka.

At the request of the Ministry of Health, rice flour fortified with iron and folic acid, according to the WHO recommendations were formulated with the aim of reducing malnutrition. The technology was transferred to Bandara Industrial Services (Pvt.) Ltd.

A glaze material with high cutlery resistance for tableware was developed at a request of an export company and the technology was transferred.

Technology Development

ITI continued to test all the powdered milk imported the country for DCD after the detection of the impurity last year in some imported milk. ITI scientist developed a new method to test the compound using FTIR-ATR technique which is economical and less time consuming.

A ready to drink beverage and a herbal tea from Thebu (Wild Ginger), a medicinal plant with hypoglycemic and normo-glycemic activities and a sugar free clear juice from Aloe which has gastro protective properties were developed and ready for technology transfer.

Instant soup cube from fish varieties Tuna, Karalla and Salaya was developed without using any artificial ingredient. The fish cube which is flavoured with spices could be used by dissolving in hot water.

ITI conducted a pilot scale study on Constructed wetland technology, a greener technology for treatment of wastewater showed promising results on wastewater from dairy industry.

Studies on para-pheromone from *Ocimum santum* showed activity against fruit and melon flies and a systematic survey covering 13 districts was initiated to identify the variety with highest activity.

With the findings of anti-glycation and glycation reversing activities of rice bran, a project was initiated to separate the active components from the rice bran and to develop anti-diabetic products from it.

The active fraction of *Trichosanthes cucumerina* Linn, herb with gastroprotective activity was separated and the mechanism responsible for the activity was established. A product to treat gastric ulcers was initiated. A formulation for pain relieving balm using anti-inflammatory compounds from *Alpinia calcarata* was initiated.

Support to the Industry Testing Services

In strengthening the testing facilities at ITI several high end, high sensitive, state of the art equipments were acquired in order to provide an internationally competitive testing services to the industry. These high end equipments will provide the ability to produce internationally accepted test report meeting stringent criteria laid down by international regulatory bodies.

Support to the SMEs, Vidatha

In support of SME sector many technology transfer programme were conducted. Several of these programmes were conducted with the assistance of the VIDATHA programme of the line Ministry and international bodies such as UNDP & GIZ. Under the SME support technology transfers, 7 technologies were transferred on exclusive basis and 42 on non-exclusive basis. Post technology transfer support too was provided as and when requested by the industries.

Malabe Research and Development Complex

The construction of the basement, first and second floors of the biotechnology complex under the 2KR Agro-Food Technology has been completed and action has been initiated to construct upper three floors of the Biotechnology complex and GOSL funds were secured for this purpose.

Food Open Day, Nutrition Walk and World Science Day

An open day to industry, stakeholders and general public was organized to promote and transfer technology of the products developed by the Food Technology Section.

With the assistance of National Nutrition Secretariat of Presidential Secretariat a Nutrition Walk and an exhibition was organized to commemorate the Nutrition Month in June. The President of Socialist Republic of Sri Lanka, Honourable Mahinda Rajapakse, Minister of Technology and Research, Patali Champaka Ranawaka, Higher officers of the Ministry and the staff of sister Institutes took part in the walk.

ITI with the other Institutes which come under the Ministry of Technology and Research initiated the commemoration of World Science Day with a Science Popularizing walk

followed by a weeklong exhibition, seminars, popular lectures, and open days at ITI premises.

Publications, Patents, Awards and Recognition

ITI engineer won the Presidential Award 2012 for Best Invention in the field of Industries & Technology for Safety coconut husk feeding mechanism to extract Bristol fibre from fibre extraction processes” at the Presidential Ceremony held in 2014. Eleven researchers won Presidential Awards for their highly rated scientific research as evaluated by peers and published in Science Citation Index (SCI) Journals.

Scientific papers of ITI scientists published in referred journals increased to 20, and contributed with chapters for four books by reputed scientific publishers. During the year five innovations were filed for patents.

Employee Relations and welfare measures

The Institute continued its welfare activities to build up employee relations and good will among staff and their families. Inter divisional netball, cricket and volleyball matches were held for the first time. Annual trip was organized to Nuwara eliya and many employees enjoyed the trip with their families.

The netball team emerged both League Champions (2014) and Knock out Champions (2013) in group C.

The Seva Vanitha Unit continued to donate school books for children of deserved employees and Christmas and Avurudu sale for its employees. A medical check up for its members and their families were conducted during the year.

The Buddhist society held the blood donation campaign for the 12th consecutive year and the lunch for Preethipura children’s home. Two dhamma sermons were organized to commemorate Vesak and Poson. The Christian Society continued with their annual Christmas party.

Human Resources

Director General Dr. G A S Premakumara resigned from his post in August and before that Mr. D C A Sattrukulasingha, Additional Director General, Administration & Operations, Mr.Thilak Samarasekare, Senior Deputy Director, Administration and Human Resources, Mr. J Solomon, Senior Deputy Director Finance Division and Dr.Siddhika Senarathne, Head, Biotechnology unit resigned from service.

Dr. Muditha Liyanagedara, Director of NASTEC was appointed as the acting Director General on resignation of Director General Dr. G A S Premakumara. Many of sectional Senior Deputy Director positions remained vacant.

Eng. H N Gunadasa, Senior Deputy Director, Environmental Technology Section and Eng. J M S Jayatileke, Senior Deputy Director, Materials Laboratory retired after a long dedicated service to the Institute.

During the year, 7 Research Scientists were recruited while 11 Research Scientists retired/resigned from the Institute. The number of PhD and Masters Degree holders increased by 5% compared to last year showing that the research staff are getting more oriented towards higher qualifications.

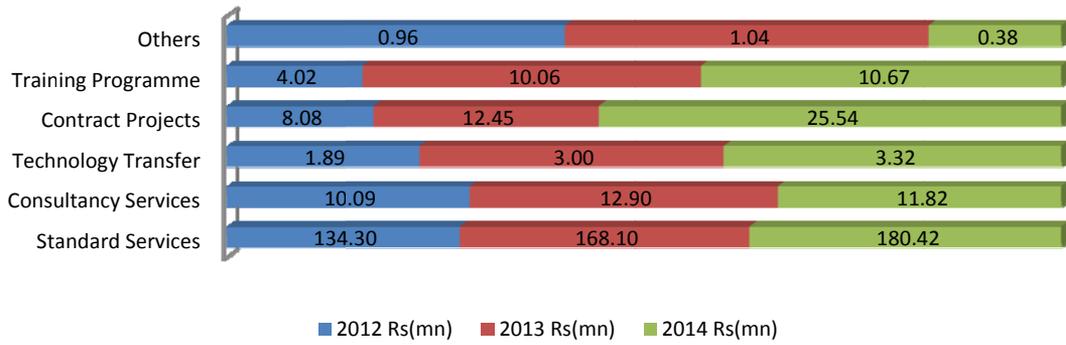
Financial Performance

Institute income from business activities showed remarkable increase of 12% from Rs 207.5mn in 2013 to Rs 232.14mn in 2014, while the recurrent expenditure marginally increased by Rs 12.13mn in 2014 with compared to 2013 figure of Rs 380.79mn. The Income/Recurrent expenses (with considering Depreciation) ratios hence showed an upward trend from 47% to 51%. Testing & calibration services continue to be the leading income generating activities of the institute by contributing a share of 78% (Rs 180.42mn) to the total generated income. Revenue from the technology transfer showed an upward trend increasing from previous year's figure Rs 3.0mn to Rs 3.3mn. Income from the contract projects showed remarkable upward trend from Rs 12.45mn in last year to Rs 25.54mn in this year. Revenue from consultancy services and income from training activities showed marginal decrease from Rs 22.96mn in 2013 to Rs 22.49mn in this year.

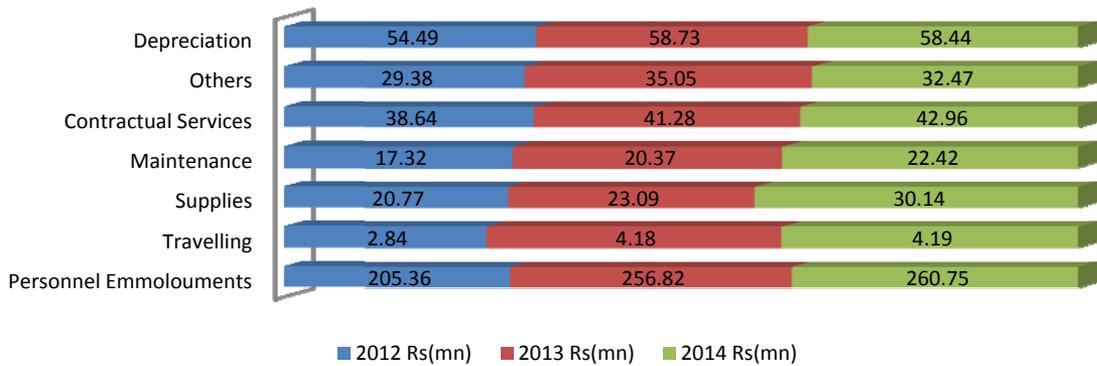
The performance based incentives were paid to the staff for 11th consecutive year as the institute achieved overall income targets set for the year.

The state grant, both recurrent and capital released during the year increased from Rs 323.3 mn in last year to Rs 426.65mn in this year. However recurrent grant showed marginal increase. The capital grant release increased from Rs 146.7mn in previous year to Rs 236.65mn in this year, of which Rs 102mn spent on Modern Research Development Complex at Malabe.

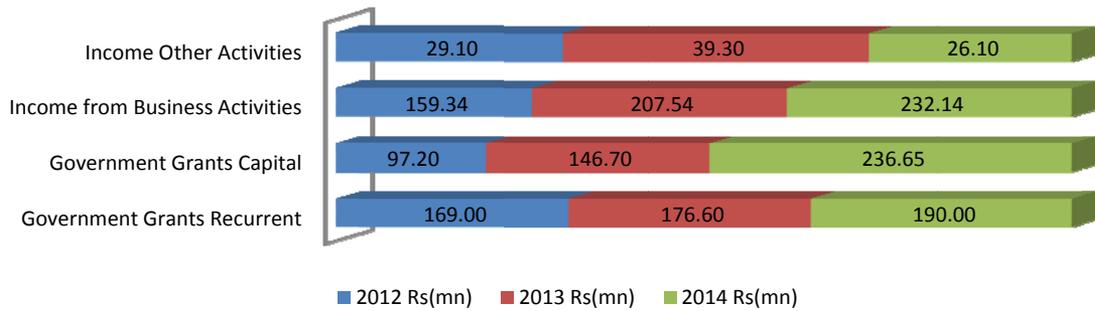
Income on Business Activities Trend Rs(mn)

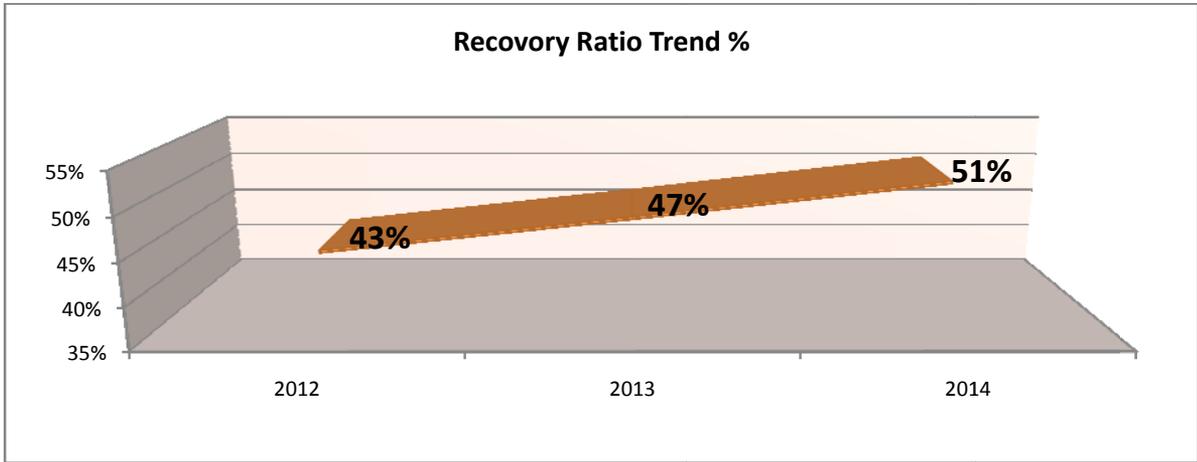


Recurrent Expenditure Trend Rs (Mn)



Oprating Revenue Trend Rs(mn)





Dr. G A S Premakumara
Director General

Performance Highlights

New DCD determination method

During 2013 ITI played a vital role in identification and quantification of DCD in some imported milk powder brands. The government then decided to test all the milk powder consignment imported to the country for DCD. However, the method that has to follow is time consuming. Thus ITI scientists developed a new test method using FTIR-ATR technique which is very user friendly, extremely sensitive and less time consuming. Further this method is very economical. New method is now available for detect and detection of DCD in different matrices.

EIA for Liquefied Natural Gas project

The Environmental Impact Assessment on the proposed liquefied natural gas (LNG) project of Ceylon Electricity Board (CEB) was performed by the ITI on request of CEB. The EIA covered air quality assessment and air pollution control, water quality assessment and wastewater management as well as noise and vibration assessment. The mitigatory measures for potential environmental pollution of the proposed LNG project were also recommended.

Measuring and mapping environmental noise and vibration levels

Noise and vibration are two factors that have to be considered in projects such as road and building construction, ship performance evaluation, and environmental pollution control etc. Expert team of ITI working on noise and vibration, on request, measure and predict the levels and suggest abatement methods of noise and vibration.

During 2014 the expert team worked on many national level construction projects. Proposed Northern Expressway, elevated highway from Kirulapona to Galle Face via New Kelani Bridge, Monorail – Sky Train in Colombo City and Port City were among those. For these projects ITI was requested to measure the noise and vibration levels and also to predict the noise and vibration levels for the future.

Further ITI, from 2012, continue to measure noise and vibration levels of newly built ships by Colombo Dockyard PLC to ensure smooth function of the ships.

Fiber Board

A fiber polymer composite board to extend the shelf life of fruits such as mango has been developed by ITI. Fiber extracted from the banana pseudo stem is the main raw material of

the board. The board is hexanal impregnated and this extends the shelf-life of the fruit. The fiber board is nature friendly as this can replace the Styrofoam sleeve used at present to protect fruits from post harvest damages.

Ready-to-drink beverage and herbal tea with *Thebu*

The novel trend in today's world is to incorporate herbs and formulate functional foods which are healthier, more palatable, attractive and economical. *Thebu* (Wild ginger) is a medicinal plant which shows medicinal properties including hypoglycemic and normo-glycemic activities. In the local market herbal tea or any other beverage type preparation of *thebu* is not available. A team of Food scientists of ITI took the challenge of formulating a ready-to-drink (RTD) beverage and a herbal tea from *Thebu* and have formulated. The shelf-life studies of both products are completed and the technologies are ready to be transferred.

Sugar-free clear juice from Aloe

Aloe is well known for its gastro-protective properties in traditional medicine. A team of researchers of ITI have developed a sugar-free clear juice from Aloe. Non-thermal / thermal combined process technology has been used to develop the product to ensure the nutrient retention. Lab and pilot scale studies have been completed and the technology is ready to be transferred.

Tape calibration bench

Calibration of measuring tapes has a high industrial demand. ITI has developed 10 m tape calibration bench which is traceable to PTB, the National Metrology Institute of Germany. During 2014 more than 50 tape calibrations have been completed using the newly developed tape calibration bench.

Rainfall monitoring network

Commissioning of the rainfall monitoring network took place in 2014. Automated rain gauges were constructed and installed by the ITI during 2013. The system was configured to measure the real time rainfall and transmit data from six monitoring points located in Kandy, Matale, Kegalle, Kurunegala, Nuwaraeliya and Badulla to the control room located in National Building Research Organization (NBRO) in Colombo. During the times of heavy

rainfall in 2014, NBRO issued warnings of imminent landslides to the general public based on information obtained from the rainfall monitoring network.

Technology Transfers

Low cost water filter for fluoride and heavy metal removal

Laboratory scale and the pilot-scale studies of the red clay water filter have been successfully completed and on a request made by the North Western Provincial Council 1000 water filters were distributed among the residents of the area. To mark the event a ceremony was held at the Main Auditorium of ITI on 8th November 2014 with the presence of the Honourable Chief Minister of North Western province and the Minister of Technology and Research.

Development of a biomass briquetting adhesive

A biomass briquetting company has requested to develop a suitable adhesive for tree bark based raw material briquetting. The developed adhesive should have been compatible with the present briquette production process. ITI developed adhesive conforms the required quality standards and also suitable for the present production process.

Fortified rice flour

With the aim of reducing the anaemic rate among the state population Ministry of Health requested ITI to formulate 'fortified rice flour' with iron and folic acid. Fortification was done according to the WHO recommendations and the fortified rice flour was used to produce commonly consumed Sri Lankan food varieties and compared with the non-fortified flour. After conducting required tests such as sensory and physico-chemical analyses and evaluating the shelf-life, the suitability of the fortification process was confirmed. ITI developed rice flour fortification technology was transferred to Bandara Industrial Services (Pvt.) Ltd., the manufacturers of Healthy Flour.

Instant Fish Cube

ITI has developed an instant soup cube from fish. This work was initiated at the request of Ministry of Fisheries and the non availability of fish cube in the local market also encouraged the researchers to undertake this development.

Three fish types, namely, Tuna, *Kaaralla*, and *Saalaya* were selected for the study. All-year-round availability was the main reason to select these three types of fish. The other reasons

for the selection were, *Saalaya* contains a high amount of omega-3 while traditionally *Kaaralla* is accepted as 'good' for soups.

The fish cube contains only the natural ingredient. Spices are the natural flavouring agents of this soup cube and mixing with hot water is the only step to follow in preparation of fish soup.

All the required trial for a food item such as sensory evaluation, shelf-life testing *etc.* has been completed for the fish cube and awaiting for the technology transfer.

More Technology Transfers.....

- RTS, fruit pulp and concentrated juice
- sugar free energy drink from green tea
- production of virgin coconut oil
- nutritious bar and nutritious biscuits

Quality Infrastructure

As the premier research and development institute of the country, ITI is fully committed for the provision of the quality technical services for the industry.

SWEDAC and SLAB Accreditation for Testing Laboratories

ITI has maintains its international accreditation status of ISO 17025 in Metrological, Material, and Chemical & Microbiological analysis areas. Total of 116 Analytical parameters comprising 60 parameters in metrology, 11 parameters in material, 116 parameters in chemical and microbiology have been accredited under Swedish Board for Accreditation and Conformity Assessment (SWEDAC). Locally, a total of 148 Analytical parameters comprising one parameter in metrology, 11 material parameters, 130 parameters in chemical and microbiology and 6 parameter in sound and vibration have been accredited under Sri Lanka Accreditation Board (SLAB). The accreditation status has been maintained for the last 13 years continuously.

Several new parameters including, yeast and mould count in tea, cement testing, water testing by Inter Laboratory Comparison, heavy metal testing in fertilizers, and vibration measurements were added to the scope of the SLAB accreditation. Two new microbiological parameters were also added to the scope.

ISO 9001:2008 Certification for R & D Laboratories and Information Services Centre

ITI maintains ISO 9001:2008 certification status for the R&D laboratories of Food Technology, Herbal Technology, Environmental Technology, Material Technology laboratories and the Information Services Centre. Year 2014 is the 7th consecutive year for maintenance of ISO 9001:2008 certification.

Coordination for Participation for Proficiency Testing Programmes

Participation and good performance at proficiency testing (PT) is one of the key aspects for the continuous maintenance of the accreditation status of any laboratory. Therefore, to fulfill this requirement, ITI has participated in a total of 11 proficiency testing parameters and the overall success rate was 93% with 96% success rate in Food and Agro area, 92% success rate in pesticide residue area, 97% success rate in water and waste water area and 87% success rate in microbiology area. These PT programmes also involved several parameters which

have no accreditation status at present, but have quality system in place and have a high potential for accreditation on demand for the service in the future.

With the aim of up lifting the country's chemical metrology capacity, ITI has taken a leading role in the capacity building in this area and has initiated provision of PT programmes for the local laboratories. Two PT programmes are conducted annually by ITI and Quality Assuring Department coordinates the scheme. A new scheme of PT on cement testing was conducted successfully in the year 2014 and will be available in the regular programme from 2015 onward. This was the first such programme in the country for cement testing.

Accelerating Industrial Technology Development

ITI continuously conducts research and development of products to support industry to be competitive and also improve quality of products in the market. Food, Herbal, Materials, Chemicals are major areas where ITI scientists engage in consultancies, contract and demand driven research activities. The following sections elaborate on some of the key activities done during the year.

Production of glucose syrup from local raw materials

Glucose syrup is a commercially important sweetener in food industry with a high importation tax. Starchy raw materials such as potatoes, rice, manioc etc. are subjected to enzymatic degradation in the process of producing glucose syrup. Quality of the syrup is monitored by 'Dextrose Equivalent' unit.

A team of ITI researchers worked on optimizing the conditions in the process of manufacturing glucose syrup from corn, manioc and broken rice. Laboratory studies with regard to process condition optimization have been completed successfully. At present they are working on application of the new process conditions at the factory level. Further the team carry out studies on the residue of the corn, manioc and rice to identify the possibility of using it as a high protein concentrate in food processing.

Low caloric functional bread

Bread is a wheat based popular food product worldwide. However, nutritionally it is considered as low as it has a high caloric value and glycemic index. These characteristics are factors leading to many non-communicable diseases. Considering the popularity as a food product it is important to formulate bread nutritional and functional manner. ITI has initiated a project to include low cost locally available materials and formulate nutritionally and functionally sound bread for Sri Lankan market.

Hydro carbon degrading bacteria for bioremediation

Hydro carbon or petroleum oil is the main energy source in Sri Lanka and soil contamination by these oils causes considerable environmental issues. Bioremediation or using biological method to degrade or break down these oils is a need. For that, suitable bacterial strains have to be identified and immobilize on a suitable carrier.

In a previous study conducted at ITI thirty eight bioremediation bacteria species were isolated. At present macro scale screening and laboratory studies are in progress for the development of a suitable product.

Low maturing and high cutlery resistance porcelain glaze

An industrial request for the development of low temperature maturing, high cutlery resistance glaze came through Centre for Technical Excellence in Ceramics (CENTEC).

Sri Lankan tableware is known for its high quality and exported mainly to Europe and USA. To remain competitive in the world market, it is important to maintain high quality and low cost. High energy cost in the country is a concern for the ceramic industry in keeping the production cost low.

Group of scientists at ITI successfully developed a glaze material with high cutlery resistant, white in colour, compatible with the required thermal expansion level. This technology has already been transferred to the requested institution.

Constructed Wetland Technology to treat food industry wastewater

Constructed Wetland (CW) Technology is a promising greener technology for treatment of wastewater arising from different industries. Although this technology was first implemented in Germany in 1958, in Sri Lanka CW technology is still a freshly minted term. ITI conducted pilot scale studies on treatment of waste water from dairy industry which contains high amount of phosphorous and nitrogen containing compounds. As the initial findings were promising the research project has further been extended to treat wastewater from other types of food industries.

Concrete mix designs

Determining required and specifiable characters of a concrete mixture is called 'Mix Design'. Through mix design the required amounts of raw materials are decided. During 2014, sixteen concrete mix designs were carried out by ITI.

Benchmarking for Competitiveness

Indoor air quality assessment for CO and CO₂

The Gateway Hotel Air Port Garden Seeduwa is one of the leading four star hotels in Sri Lanka. ITI was requested to carry out an air quality assessment for CO and CO₂ in selected indoor environments of this hotel. Measurements were done in a fully representative manner enabling to have a clear picture of the status of the air quality under normal occupancy with respect to CO and CO₂.

Flu Gas Analysis and Opacity measurements

Rileys (Pvt) Ltd., manufacturers of coir based products for export market and in their manufacturing process, a furnace oil fired Thermic Fluid heater is used. Thus the client has requested ITI for flue gas analysis and opacity measurement of this heater. ITI officers conducted the analysis using the LANCOM portable flu gas analyzer and Digital Opacity Compliance System and other related software for smoke opacity measurement. ITI is the only state institute with this opacity measurement facility with USA trained experts.

Measurements on Total Volatile Organic Compounds (TVOCs)

Harcros Chemical (Pvt.) Ltd. requested ITI to conduct an air quality assessment for airborne TVOCs generated from their agrochemical. Officers from ITI visited the factory and conducted onsite VOC measurement. Such VOC measurements had also been conducted to many other industries throughout the year.

Accredited calibration services

Industrial Metrology Laboratory of ITI supports Sri Lankan industry in a unique way by ensuring the accuracy of measurements. The laboratory continued to maintain SWEDAC accreditation in the areas of mass, thermometry, dimensional, electrical and volumetry. Also locally the metrology laboratory is accredited by SLAB for micro pipette calibration.

Recently ITI's metrology laboratory developed 10 m tape calibration bench which has a high industrial demand. Ten metre tape calibration is traceable to PTB Germany which is an internationally recognized institution in the field of metrology.

ITI's metrological services are provided to many public and private sector institutions. Private sector includes companies such as Nawaloka Hospitals (Pvt) Ltd, Asiri Hospitals

(Pvt) Ltd., Lanka Hospitals, Noratel Lanka (Pvt) Ltd, Noratel International (Pvt) Ltd, Flintec Transducers Ltd, Unichela Pvt Ltd, and Mass Holding Group.

Further, Metrology Laboratory of ITI continued to provide services to many foreign institutions such as Medical Health Laboratory of Maldives and Qarshi Research International (Pvt) Ltd, Pakistan.

Monitoring and Mitigating Pollution

Environmental Technology Section of ITI delivers innovative, precise, demand driven environmental services and undertake Research and Development to sought effective solutions for rapidly increasing environmental issues in Sri Lanka. ITI is a reputed best practicable technology (BPT) provider for local industries to alleviate various environmental issues face during establishment or operation of industries. These services enable sustainable industrialization of the country through facilitating industries to operate in an environmental friendly manner.

During 2014 ITI has delivered 145 environment protection related services covering air pollution control, waste water treatment, solid waste management, improvement of combustion system & ventilation facilities, and risk evaluation & hazardous waste management.

Wastewater Treatment

Designing a sewage treatment plant for apartment complex

The developers of Glenfalls residencies, a housing complex proposed to develop in Nuwara Eliya, requested ITI to submit a proposal for the treatment of domestic wastewater from the housing complex. The proposal on the waste water treatment plant was for the Initial Environmental Examination report for this proposed Housing Project. Accordingly a biological treatment system operated under aerobic condition was proposed as this wastewater contains readily biodegradable organic compounds.

Solid Waste Management

Commercially Viable Concrete Block using Biomass Ash

Tasma International Multiservice (Pvt.) Ltd requested ITI to develop a commercially viable concrete block using biomass ash which is a byproduct from another process. Thus incorporation of wood waste ash as cement replacement material in blended cement and concrete was investigated. Manufacture of biomass concrete block was beneficial environmentally as well as the low cost of raw materials. According to the findings, wood ash is suitable for use in masonry blocks and make indoor and outdoor environments thermally comfortable than only sand and cement blocks.

Environmental Assessment of the ‘Takakura Composting Method’

In early 2014, Japan International Cooperation Agency (JICA) introduced a new accelerated composting method called ‘Takakura Composting Method’ to the National Solid Waste Management Support Center (NSWMSC). The NSWMSC office has reviewed this method and currently intends to introduce this new method to Sri Lanka with support from JICA. As per the request made by NSWMSC, ITI carried out an assessment to determine the technical feasibility of this method.

Air Pollution Control

Commissioning fume and dust extraction systems

CIC Crop Solutions requested ITI to carry out an assessment to identify and evaluate potential emission sources to design suitable air pollution control system in order to minimize the air pollution during the operation of the agrochemical repackaging plant proposed to be relocated in Panagoda. Accordingly technical proposals on control of air emissions were submitted. Further the commissioning of the system was carried out by ITI after the installation of the proposed air pollution control system at CIC Formulation and Repackaging Center at Panagoda, Homagama.

Air Dispersion Modeling

Dispersion of atmospheric emissions is essentially required to be evaluated at the proposal stage of Strategic Development Projects. Air dispersion modeling is commonly taken as one of the key decision making tools to evaluate such dispersion of atmospheric emissions. AERMOD View is a US Environmental Protection Agency approved air dispersion modeling Software used by the ITI to make predictions on atmospheric pollutant dispersion accurately. Two air dispersion modeling studies were carried out during the year for the possible air pollutant dispersion from the proposed 500MW coal power plant at Sampoor and Industrial Zone adjacent to the Magam Ruhunupura Mahinda Rajapaksha Port at Hambantota. ITI is the only government institute of the country capable of serving interested clients with stated Air dispersion modelling facility.

Noise and vibration control

Industrial Noise and Vibration (INV) Group of ITI, a team of experts working on control of noise and vibration, assisted Sri Lankan industry to be more environmental friendly. Asian Granite (Pvt.) Ltd., in Biyagama EPZ and ready-mix plant of Tokyo Cement (Pvt.) Ltd. at

Kadawatha were two of many institutions sought recommendations of ITI to control noise and vibration pollution and inconvenience caused to public. At Asian Granite factory and ready-mix plant of Tokyo Cement, INV Group of ITI monitored the noise and vibration and suggested the mitigation methods also. Further the efficiency of the mitigation methods were also monitored by the ITI.

Technology for Human Welfare and Socio-economic Upliftment

Para-pheromone from local *Ocimum sanctum* to control fruit and melon flies

Fruit and melon flies that destroy the fruit harvest could be controlled using para-pheromones. Initial study on *Ocimum sanctum* was started with the view of identifying the best *Ocimum* variety to use for the bioassays. A systematic survey was carried out covering 13 districts and *Ocimum* plant samples were collected. Different plant types were potted and maintained at ITI for further research. Essential oils extracted from each *Ocimum* type were analysed and further studies are being carried out to identify the best *Ocimum* type for the identification of the para-pheromone active for fruit and melon flies.

Sustainable use of medicinal plants

At present most of the medicinal plants required are collected from the natural environment and this practice has posed a threat to the sustainability of those plants. To overcome this issue, to ensure the availability of medicinal plants and to improve the knowledge on medicinal plants among school children Ministries of Technology and Research and Education started a project together with ITI to develop medicinal plant gardens in schools.

In 2014 four school herbal gardens were established. Each school herbal garden has 60 medicinal plant species. Name boards, with scientific name, vernacular name, plant family and general medicinal uses of the plant, were established for all 60 plant species selected. This programme has become very popular among schools and is in progress.

Conferences, Seminars, Training Programs & workshops

Training Programs and Workshops

ITI continued training personnel from Small and Medium Enterprises, Vidatha Centres and Undergraduate and Graduate students providing a great service towards the economic development of the country.

During the year 2014, over 100 training workshops were organized and conducted in the fields of Materials, Food, Herbal and Biotechnology offering required know how for initiation of small enterprise. Training on liquid detergents for household purposes was in demanded among potential entrepreneurs.

The UNDP, Traditional Industries and Small Enterprises and Ministries of Fisheries and Aquatic Resources sponsored workshops were carried out for SMEs on Rice and Kitul based products, and fish processing paving the way for new income avenue for them.

ITI also continued to train foreign groups in the areas of its expertise; during the year under review training on “How to carry out an internal audit as per ISO/IEC 1702” was conducted for Malay Sewerage and Water Company.

Training Undergraduate and Graduate Students

ITI with its qualified staff and well equipped laboratories continued to offer industrial training to undergraduates of universities and other educational institutes. During the year, 42 undergraduate students were trained in the fields of Food Technology, Material Technology, Herbal Technology and Biotechnology.

Undergraduate students from foreign universities were also given the opportunity to work in ITI laboratories under supervision. Two students from University of Bangalore and University of Monash underwent training on Food Technology and two students from University of Bangalore and University of Nottingham, Malaysia followed the Certificate Course on Biotechnology and Molecular Biology conducted by Biotechnology Unit.

Capacity Building & Productivity Development

Institute takes a keen interest to enhance the knowledge of its employees.

Continuing PhD studies

- 1 C. H. Manoratne - University of Colombo
Thesis Title – Synthesis and characterization of graphene and graphene composites for application in lithium ion batteries
- 2 Saman Weeraratne - University of Colombo
Thesis Title - Novel methods to estimate thermochemical constants and index system for mass spectrometry
- 3 H. P. P. S. Somasiri - University of Colombo
Thesis Title - Chemical characterization and authentication of *Caryota urens* (Kithul) sap and its product
- 4 Wasundara Divisekera - University of Colombo
Thesis Title – Development of a probiotic food through novel cereal and fruit based prebiotic
- 5 Kaushalya Abeysekera - University of Colombo
Thesis Title – Assessment of potential health benefits of Sri Lanka Cinnamon by studying selected bioactivity
- 6 Hasitha Weeratunge - University of Colombo
Thesis Title – Investigation on natural fragrances and other volatiles from Sri Lankan forests and their industrial applications
- 7 Sachindra Perera - University of Colombo
Thesis Title - Validation and value addition of bio active natural ingredients for industrial applications

Continuing MPhil Studies

- 1 L. D. C Nayanajith - University of Colombo
Thesis Title - Synthesis and characterization of graphene and composites for application in photovoltaic cells
- 2 D. S. Samarawickrama - University of Colombo
Thesis Title – Development of a natural fiber based, “smart” packaging material to address the post harvest losses of Mangoes in Sri Lanka

- 3 Ayanthika Fernando - University of Colombo
Thesis Title - Investigation of the effect of hexanal impregnated bio wax treatment in postharvest quality of mango in Sri Lanka
- 4 Nisala Gunasekera - University of Colombo
Thesis Title - Investigation of natural anti-senescence compounds; edible wax incorporated smart delivery system for the control release of anti-senescence agents as a tool in postharvest disease control and crop quality preservation
- 5 Sachini Jayawardena - University of Colombo
Thesis Title – Prebiotic and bioactive properties of Sri Lankan finger millet (*Eleusine coracana*) varieties

Completed MPhil studies

- 1 R. S. S. Ranathunga
University of Sri Jayawardenepura/ Yale University, USA
Thesis Title - Micro-habitat utilization of canopy dominant tree species in tropical rain forests in Sri Lanka

Continuing MSc studies

- 1 Kalika Kumarasinghe - University of Moratuwa
Subject - Environmental Engineering and Management
- 2 R. P. Nilusha - University of Colombo
Subject - Environment Management
- 3 S. S. K. Madage - PGIA, University of Peradeniya
Subject – Animal Science
- 4 K. V. T. Gunawardhane - PGIA, University of Peradeniya
Subject - Agriculture Engineering
- 5 Ramya Wijesekara - University of Colombo
Subject - Environment Management

Completed MSc

- 1 D. M. H. S. Dissanayake - University of Moratuwa
Subject - Sustainable Process Development
Thesis Title - Utilization of Waste glazed tiles as a raw material additive
2. E. M. S. Isanka - University of Colombo
Subject - Analytical Chemistry

Thesis Title – Determination of Food composition and Nutritional labeling for selected agricultural produce in Sri Lanka

Continuing PG Diplomas

1. Dineshka Priyangani - University of Colombo
Subject - Manufacturing Management
2. N. Geekiyanage - University of Colombo
Subject - Library & Information Science
3. Roshani Fernando - University of Colombo
Subject – Information Management

Foreign Training

- W.R.K Fonseka participated in a workshop on “Asian Monsoon and Climate Change in Pakistan” conducted by COMSATS (19th – 23rd January 2014)
- W.R.K Fonseka participated in a workshop on “Energy for all” conducted by NAM Centre, Pakistan (21st – 25th February 2014)
- Upeka Rajawardhana participated in a Research training fellowship for developing country scientist organized by NAM S&T centre, India (28th February – 21st August 2014)
- Ilmi Hewajulige participated in a Progress review meeting – IDRC organized by University of Guelph, Canada (19th - 24th April 2014)
- D.M.H.S.Dissanayake and R.D.S.S.Ranathunga participated in a workshop on “Asian Climate Predictability” organized by ICCES-China (7th – 14th July 2014)
- K.S.P. Karunadasa and C H Manoratne participated in a training workshop on “Application training on X-ray Diffractometer (Rigaku-Ultima IV) at Rigaku, Japan (16th – 18th July 2014)
- Madara Samaranayake and Sachini Jayawardena participated in a training programme on “Analytical Techniques used in Nutrition, Food safety and Biosafety” organized by International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India (1st - 14th September 2014)
- Ms. K H R Sajeewani attended a certificate course on “Advance ceramic materials” conducted by AGH University of Science and Technology, Kratow, Poland (20th September 2014 – 31st March 2015)

- W.R.K Fonseka participated in a workshop on “Eco innovation manual in China” conducted by UNEP (October 2014)
- N.A.T.P.P.Gunasekara participated in 2nd international workshop conference and exhibition on “Desalination” in organized by Iranian Research organization for Science and Technology, Tehran, Iran (29th – 31st October 2014)
- Sachini Jayawardane and Sutharsana Ravichandran participated in a training workshop on “Analytical techniques and new methods on prebiotic analysis” organized by International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Hyderabad, India (6th - 30th November 2014)
- Ilmi Hewajulige participated on “First coordination meeting RAS 5061” organized by IAEA – Indonesia (24th - 28th November 2014)
- Purnima Jayasinha participated in a study tour to Indian Libraries organized by World Health Organization (1st – 5th December 2014)

New Initiatives

Ensuring human health, food and nutrition security

Sorghum, pearl millet, finger millet and banana are under-utilized and traditionally known food with prebiotic characters. However, prebiotic characters of these cereals and common fruit have not been quantified or characterized. As sorghum and pearl millet are commonly cultivated in India studies on prebiotics of these cereals are studied in India while studies on finger millet and banana are carried out in Sri Lanka at ITI.

The project explores the possibility of encapsulation of probiotic culture of microorganism in prebiotic capsule made out of finger millet and / or banana with the objective of commercialization of functional prebiotic and probiotic product.

Three finger millet and nine banana varieties have been selected for the study and chemical analysis has been completed. Potential microbial varieties have also been isolated and completed the phenotypic and genotypic characterization. Further in vitro probiotic aptitude study has also shown the possibility of furthering the project to product development.

The final product of this project will be a non-dairy pro and pre biotic product with low glycemic index.

Non-thermal processing technologies for blended fruit and vegetable

Fresh fruit and vegetable juices are considered as highly nutritive and juices are excellent sources of antioxidants and phyto-chemicals which are associated with the reduction of the potential of non-communicable diseases. However, raw fresh juices rapidly undergo oxidative degradation changing its colour, taste etc. Thermal processing methods reduce the nutritive value drastically though it increases the shelf-life. At present there are many new non-thermal methods. The objective of this process is to identify fruits and vegetables rich in antioxidants for blending, to learn the process of oxidative degradation and to identify the best non-thermal technique for juice processing.

Anti-diabetic rice bran product

Sri Lanka has a rich biodiversity and even with rice the diversity is rich. The traditional rice varieties and the brown outer covering or bran of them are believed to have various functional properties. ITI researchers have already studied and reported such functional activities of some traditional rice and rice bran varieties. Anti-glycation and glycation

reversing activities of rice bran and anti-amylase and anti-hyperglycemic activities for Sri Lankan rice varieties were reported by the ITI scientists for the first time worldwide. In 2014 a research project was started to separate the parts with anti-glycation and glycation reversing activity and develop an anti-diabetic rice bran product.

Baseline environmental audit on air, water and noise

Ministry of Industry and Commerce requested ITI to carry out baseline survey on air and water quality at Dankotuwa, Puttalam, Makandura - East and West Industrial Estates in North Western Province. Walkthrough industry audits were conducted to collect basic information on the industries located in each estate and to determine required water quality and air quality parameters to be tested and to identify number of sampling/ measurement locations. Based on the outcome from this preliminary inspection visits to Industrial Estates, a proposal was prepared including technical approach and methodology for the baseline survey. This proposal was presented to Ministry of industry and Commerce in 2014 and it was approved and the environmental audit commenced soon after.

Controlling Dengue

Early diagnosis of Dengue infection is considerably a challenge due to its similar clinical symptoms with other circulating febrile diseases and the lack of facilities available throughout the island to diagnose the disease. Currently initial diagnosis by clinicians is mainly dependent on the symptoms together with the basic laboratory hematological investigations.

Further a number of different laboratory tools are available for detection of antigen or antibody or both simultaneously as diagnostic tools of dengue fever. However, the major drawback is the test has to be done in a hospital at a high cost and detection of the virus on the day one of onset of symptoms is impossible due to lack of sensitivities of the current assays. Apart from the disadvantages from patient side, there are several major disadvantages from the laboratory. Further, the reported sensitivities and specificities of the available tests have been uniformly lower. Therefore, there is an urgent need to develop a rapid, sensitive, cheap and early diagnostic tool which could be used easily in homes.

This study uses engineered antibody coated nanoparticles attached to a small scale electrical device. Therefore the expenses for reagents and instruments are prohibited. Due to the presence of unique properties in nanoscale materials, device could be designed to report the

presence of infectious agent in any clinical or environmental samples can be designed (eg: saliva, urine) (Ishikawa et al., 2009). The aim of this project is to provide an affordable test kit for patients with low economical background using bio and nano technologies together.

Natural gastroprotective agent from *Trichosanthes cucumerina*

Earlier studies at the ITI revealed that *Trichosanthes cucumerina* Linn. is a herb with gastroprotective activity. However, identification of the compounds responsible for this activity was started during 2014. First the gastroprotective active fraction/s were separated from the hot water extract of *T. cucumerina*. The mechanism responsible for gastroprotective activity was then established.

Further research activities are in progress to produce a value added, marketable product from *T. cucumerina* for the treatment of gastric ulcers.

Anti-inflammatory compounds from *Alpinia calcarata*

Alpinia calcarata is a well known herb used in traditional medicine in Sri Lanka. Based on traditional knowledge the researchers at ITI are trying to use *A. calcarata* extract in controlling rheumatic diseases and formulation of pain relieving balm or ointment.

Assays are being carried out to identify the anti-inflammatory action of *A. calcarata* leaf and rhizome oils. This study will facilitate the development of anti-inflammatory drugs in the future.

Sri Lankan tomato varieties for the production of puree

In Sri Lanka half of the tomato yield is lost during post-harvest handling. Further inferior quality, insufficient technology and perception on poor colour development hinders the usage of local tomato varieties in tomato based products. The research project started with the aim of developing tomato puree using local varieties. Physical and chemical characteristics of five local tomato varieties have been completed and tomato pulp from five varieties has been produced using open pan method and ITI method. This tomato pulp has been subjected various tests and physical and chemical properties have been established. Maturity index to be used when harvesting tomatoes has been prepared.

Production of industrial alpha-amylase

Thermolabile Alpha-amylase and thermostable Alpha-amylase, are indispensable enzymes in industry including detergent and brewing industries. Alpha-amylase is used to break complex sugars into simple sugars, yeast feeds on these sugars at anaerobic conditions convert them into alcohol and carbon dioxide.

In brewing industry, the enzyme function is required to be optimum at very high temperatures. Therefore, alpha amylase needs to be thermostable.

A project was initiated to develop a technology to produce thermostable and thermolabile alpha amylase from cassava starch at the industrial level with minimum cost. Conditions required for efficient expression of thermolabile alpha-amylase in the laboratory scale were already determined.

Bio-plastics for healthcare industry

Polymers based on lactic acid are used as fracture fixation devices, surgical cord for internal sutures, controlled release of medicines etc. Further this is an industry with high returns on investment and high growth. However, Sri Lanka does not produce lactic acid polymers. At ITI a research project has been started with the view of obtaining lactic acid from *Lactibacillus casei*. At present further experiments are carried out to optimize the lactic acid production protocol to industrial scale.

Corporate Awareness

Exhibitions

Marketing and Business Division performed its mandate by promoting ITI technology in exhibitions and conduction awareness programmes. During the year ITI took part in more than fifteen exhibitions such Deyata Kirula, Kitulaka Warna and various trade exhibitions paving the way to introduce ITI technology and services to industry and general public.

An exhibition to promote products and technologies developed by Food Technology Section was held in June. Many opportunities were created at the event and among them were the four technology transfers and the trusted linkages with NGOs.

A Nutrition walk and exhibition in collaboration with the Ministry of Technology and Research was held on 19th July, to make awareness on good health habits and nutritional food among the public. The exhibition was opened by His Excellency the Hon. President of Social Republic of Sri Lanka, Mahinda Rajapakse.

A Science Week was held from 4th – 8th November to commemorate the World Science day. ITI coordinated the event as the main organizer with the support of Ministry of Technology and Research. Institutes come under the preview of the Ministry participated at the event with popular lectures, demonstrations and exhibition stalls. Science walk with more than 2000 participants was held on the 8th November.

Media Publicity for ITI Activities & Events

More than 70 articles were published in Sinhala and English newspapers during the year 2014 on ITI activities, services and events.

Information for Industry

The information Services Centre (ISC) as the largest technical library in the country continued to offer its services to the industries, entrepreneurs, research and academic communities in Sri Lanka. Information provision to the testing and research & development laboratories are also carried out by the ISC.

Collection

As a regular practice, ISC develops its collection of books and other information materials considering the world R&D trends and industry requirements. Special attention has been given to the digital information sources and HINARI, OARE, ARDI and AGORA are the new digital sources added to the ISC information sources. ISC cooperates with the other libraries to source out information for our clients through Inter Library Loans.

Two special collections, namely, ITI Knowledge Repository and Sri Lanka Collection houses publications by ITI scientists and books by Sri Lankan authors respectively.

Information dissemination

The ISC continued to provide lending facilities to its members while reference facility was open to any interested user. Efficiency of the information dissemination has been obtained through the information indexing system use and the Automated Library System at the ISC. During the period under review, a slight increase compared to last year in library usage with 1152 users, where more than 60% were undergraduates and post graduate students.

Technical inquiry facility is open to all and in ISC qualified staff members help to find information for technical queries. This service is extended to all who are in need of technical information. During 2014 over 140 inquiries have been answered.

ITI Knowledge Repository is open to the world through www through D-space. D space contains reports, full text articles, abstracts *etc.* and freely accessible.

Current Awareness Service was continued during 2014 and this was very useful for the other libraries to know the books newly added to the ISC. Once a month SMS alerts for Selective Dissemination of Information service was sent to all the ITI and non-ITI members reminding new additions to the library collection of the interest of individual member. More than 50 members requested and received the articles /books in their subject area of interest.

Seminars and workshops

During the year under consideration, ISC conducted five seminars sharing knowledge among information professionals and entrepreneurs. One day seminars on “Protect Intellect: Patent your innovations”, “Food additives, safety and Regulations”, “Bottled and Sold: A-Z on water bottling” and “Food Hygiene and safety” were conducted targeting entrepreneurs and students. A two-day workshop was conducted for library professionals titled “Quality Management for libraries and information centres: ISO 9001:2008 QMS”.

Training library professionals and students

Ten students who follow the Diploma in Sri Lanka Library Association underwent their practical training at the ISC. Further students from Institute of Chemistry were also trained on the activities of a library and literature search at the ISC.

Awards and Recognition

Research carried out by ITI Scientists and Engineers received many awards and recognition locally and internationally.

- Presidential Award 2012 for the Best Invention in the field of Industries & Technology - for the invention of “Safety coconut husk feeding mechanism to extract Bristol fibre from traditional fibre extraction processes” at the Presidential award ceremony for inventions-2014 organized by the Inventors Commission was awarded to **Mr Anura Sooriya Arachchi**

- Presidential Awards for Scientific Publications (Awards were granted in 2014)

2007	Dr. Radhika Samarasekera
2008	Dr. Radhika Samarasekera
2009	Dr. Shanthi Wilson Wijeratnam Dr. Ilmi Hewajulige
2010	Dr. Shanthi Wilson Wijeratnam Dr. Radhika Samarasekera Dr. L D A M Arawwawala
2012	Dr. G A S Premakumara Dr. L S R Arambewela Dr. L D A M Arawwawala Mr. N P Liyanawaduge Mr. A Sooriya Arachchi

- National Research Council Awards for Scientific Publications (Awards were granted in 2014)

2010	Dr. A M Mubarak Mr. H N Gunadasa Mr. J K A B Wijegunawardena
2011	Dr. Radhika Samarasekera Dr. L D A M Arawwawala
2012	Dr. Shanthi Wilson Wijeratnam Ms. Damitha Rajapakse Ms. Theja Herath

- Sahasak Nimavum Award – 2014
3rd placed in Commercialized category for the “Ready to Serve Curry leave beverage’ was awarded to **Dr. P.N.R.J. Amunugoda, Ms. Sudeepama Walliwela, Ms. Ramya Pitipanaarachchi** and **Ms. Sachini Jayawardena** at the award ceremony for inventions organized by the Inventors Commission
- Dr. Shiromini Jayasekera Award for the Best Oral Communication at the Annual Sessions of Association for Laboratory Animal Science 2014 was awarded to **Dr. G A S Premakumara**
- Best Poster Award for Expanding Development Horizons through Education, Research and Innovation at the International Research Symposium 2014 organized by General Sir John Kotelawala Defence University was awarded to **Dr. W K S M Abeysekara, Dr. G A S Premakumara and Dr. P Ranasinghe**
- Best Poster Award - for the poster titled “Probiotic and Microbiome – Gut and Beyond” at the 2nd PAI (Probiotic Association of India) Conference and International Symposium was awarded to **Ms. Upeka Rajawardhana**
- Best Poster Award - for the poster “*In vitro* genotoxicity evaluation of *Walidda antidysenterica* by comet assay” , 2nd International Conference on Frontiers in Molecular Life Sciences, Sri Lanka, 2014 was awarded to **Dr. Radhika Samarasekara**

Representation by ITI Officers at International Committees

Dr. Ilmi Hewajulige

- Member of the Reviewing Panel : International Journal of Food Science and Technology

Dr. Iresha Kottegoda

- Member of the Reviewing Panel : Electrochemica Acta

Representation by ITI Officers at Presidential Committees, Boards of State Agencies, National Committees

Dr. G A S Premakumara

- Board of Directors : National Research Council
- Board of Directors : National Committee on Women
- Board of Directors : Mushroom Development & Training Centre, Sri Lanka Export Development Board
- Board of Management : The Spice Council
- Board of Directors - CENTEC

Dr. Ilmi Hewajulige

- National Project Coordinator : International Atomic Energy Authority 5057,5061 and 5071 Projects
- Member/ Chairperson: National Codex Committees of Food additives and Processed Fruits and Vegetables: Ministry of Health.
- Member : National Committee on Postharvest Technology and Value Addition, Sri Lanka Council for Agricultural Research Policy
- Member : Steering Committee on Implementation of Gamma Irradiation facility in SL, Ministry of Technology and Research
- Member : ISO 22000-FSMS Certification Committee, Ind-Expo Certification Pvt. Ltd
- Member : Committee to prepare Sri Lanka Food Safety Policy

Dr. Iresha Kottegoda

- Member : National Mineral Committee

Mr. C H Manorathne

- National Mirror Committee on Nanotechnology, Sri Lanka Standards Institution

Ms. W J K D Ranpatige

- Member : Technical Evaluation Committee Basel Convention, Central Environmental Authority
- Member : Working Group on Old and New POPs inventory of the National Inventory Planning for the Stockholm Convention

Mr. H P P S Somasiri

- Member : National Technical / Advisory Committee on Tea, Sri Lanka Standards Institution

Academic Representation at Research Institutes and Universities

Dr. G A S Premakumara

- Visiting lecturer : Herbal Technology, South Eastern University

Dr. Ilmi Hewajulige

- Visiting Lecturer : Postharvest Management of Fruits and Vegetables, Wayamba University of Sri Lanka

Ms. Udayani Binduhewa

- Visiting Lecturer : MSc in Food Science and Technology

Social, Welfare and Religious Activities

The Welfare and Recreation Society

Welfare and Recreation Society initiated its activities for the year with the breakfast spread of Kiribath and sweetmeats after traditional Pirith ceremony organized by the Buddhist Society. Mr Chaminda Nawaratne, President for the 5th consecutive year with his team continued the activities promoting goodwill among staff and their family members.

An Inter divisional Cricket, Netball and Volleyball competitions were held for the first time. Materials Laboratory team emerge as champions in Cricket, Chemical and Microbiology Laboratory team won the Netball tournament while Food Technology Section won the Volleyball tournament. Avurudu Utsawaya to celebrate the Sinhala and Hindu New Year was organized with many competitions and entertainment for the whole family.

Annual trip to Nuwara Eliya was a great success with more than 60 staff members with their families joining the trip.

The W & RC continued the loan scheme at nominal interest terms and was able to assist many staff member during the year. Club also continued the monthly Highland products and goods sale at reduced prices for the benefit of the staff.

The hidden talents of our staff came out with singing, acting and dancing at the ITI day. The club took the opportunity to invite and show gratitude to the former employees, who are now enjoying their retirement at this event.

The Women's Netball team became both League Champions (2014) and Knock out Champions (2013) in group C showing outstanding skills, team work and sportsmanship.

Seva Vanith Unit

Seva Vanitha Unit continued its activities for the benefit of its members and for the Staff of ITI. The post President fell vacant with the resignation of the Director General during the year.

The regular activities of the unit, distribution of book vouchers to children of deserving employees, Annual New Year and Christmas fairs and the linen sale were held during the year. A raffle draw and a sale of Atlas ballpoint pens with ITI logo were carried out as fund raising activities.

The biennial Medical Checkup was organized with the Hemas Hospitals and many employees had the opportunity get a complete medical checkup by paying the cost in installments.

Two lectures, Medicinal Plants by Dr. R.M. Dharmadasa, Infectious Diseases by Dr. Lasantha Kodithuwakku and a demonstration on how to prepare a saree jacket block by Singer Sewing School was conducted as awareness programmes to the members.

At the Annual General Meeting, Vice President, Ms Sriyani Rajapakse was elected for the second term. A demonstration by Dr. Samitha Siritunge on “Music Therapy” was conducted on that occasion.

Buddhist Society

With the Annual Seth Pirith Ceremony, Buddhist Society initiated its activities for the year. The society continued its regular activities for the reviewed year.

A blood donation campaign through Blood Bank, National Cancer Institute was carried out for the 12th consecutive year. The children of employees who were sitting for Grade 5 scholarship and O/Level examinations gifted with question paper booklets. Awards were distributed to the children who performed well at the Grade 5 scholarship examination and those who selected for University education.

Vesak poya day was commemorated with a Dharma sermon by Ven. Padalangala Dhammadeva Thero. Osu pan dansela was organized for 2nd time for the public and inter sectional Vesak lantern completion for the seventh consecutive year. Poson poya Dharma Sermon was delivered by Ven. Gobbaddhala Damitha Thero.

During the year two visits were made to Preethipura Children’s Home, Wattala with lunch and gifts to children and staff.

Christian Society

The Christian Society continued with its traditional Annual Christmas Service. While conducting the service the gathering was entertained by Singing of Christmas carol, Santa Clause with gifts for all the children and refreshments made a festive surrounding.

Publications, Presentations & Patents

Publications in Refereed Journals

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- Abeywardhana, K.W., Abeysinghe, D.C., Dharmadasa, R.M. and Aththanayake, A.M.L. (2014). Determination of Optimum Maturity Stage for *Ocimum sanctum* L. Grown under Different Growing Systems in Terms of Therapeutically Active Secondary Metabolites. *World Journal of Agricultural Research*. **2**(4): 159-162.
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- Hewageegana, S., Arawwawala, M., Dhammarathana, I., Ariyawansa, S. And Tissera, M.H.A. (2014). Proximate analysis and standardization of leaves of *Leptadenia reticulata* (Retz) Wight And Arn. (Jeevanti). *World Journal of Pharmaceutical Research*. **3**(10): 1603-1612.
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- I R M Kottegoda, et.al – A book chapter titled, ‘Synthesis and Characterization of Few-layer Graphene from High Purity Sri Lankan Vein Graphite’ in the book published by the NAM S&T Centre, New Delhi, India
- I.G.N. Hewajulige, R.S. Wilson Wijeratnam, and T. Shiina (2014). Chitosan, a potential antifungal compound to control anthracnose disease in papaya in the book titled *Biological Controls for Preventing Food Deterioration*. Neeta Sharma(Ed).Wiley Blackwell, UK.
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Patents

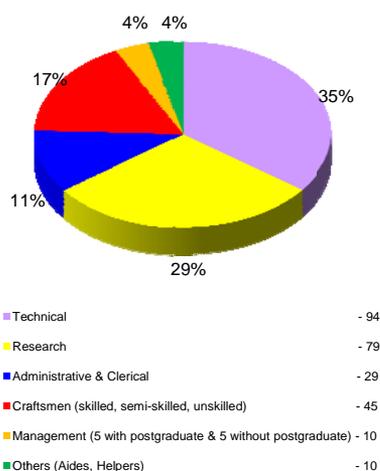
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- Processing technology of paper/boards from banana fiber for sorption and slow release applications (Patent Application No. 17575/05.02.2014), Milani M.D.Y., Samarawickrama D.S., Dharmasiri G.P.C.A., Wijerathnam R.S.W.
- Development of red clay based water filter for removal of heavy metal contamination from water (Patent Application No. 17884/04.09.2014), Kottegoda I.R.M., Jayarathna I.P.L., Jayawardena J.T.S.T., Arachchi R.C.W. and Hettiarachchi, H.A.M.I.T.
- Processing technology of banana fiber-polymer composite board for slow releasing applications of trapped active compounds (Patent Application No. 18029/03.12.2014), Milani M.D.Y., Samarawickrama D.S. and Wijerathnam R.S.W.
- Processing technology of natural anti-senescence and ant-microbial agents incorporated edible wax formulation for postharvest preservation of perishable fruits. (Patent Application No. 18030/ 03.12.2014), Gunasekera, Nisala, Wilson, Shanthi, Hewajulige, Ilmi and Perera, Shiranti

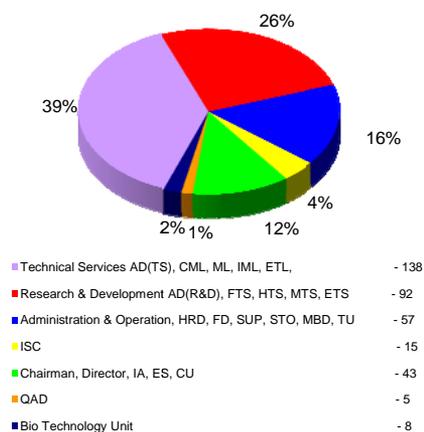
Human Resources

The total permanent staff of the institute was 358. This total comprised of 66% in the Technical divisions and 34% in support divisions. The Chemical & Microbiological Laboratory is the largest with almost 17% of the total staff.

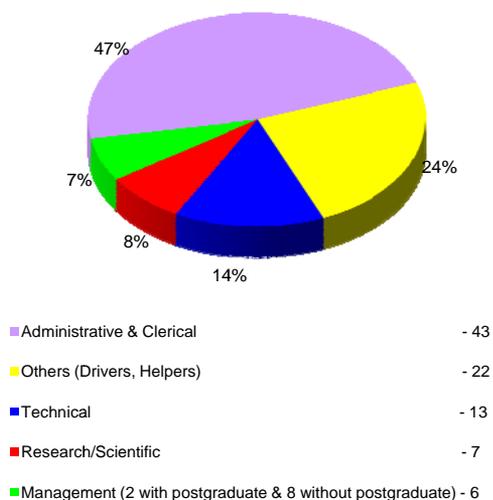
**Category-wise distribution of Staff
Technical Divisions**



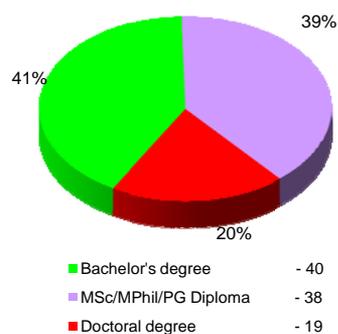
Division-wise Distribution of Staff



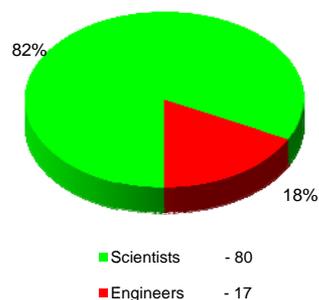
**Category-wise distribution of Staff
Support Divisions**

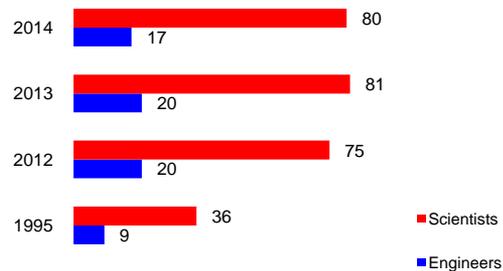
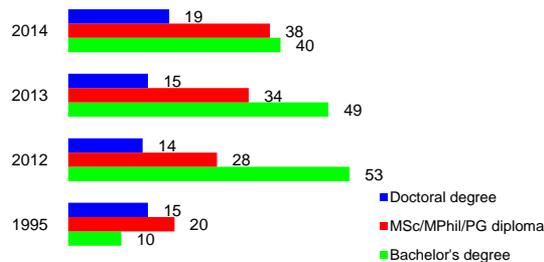
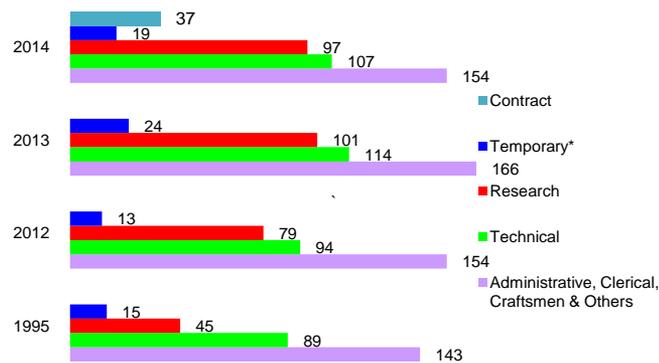


Research Staff - Educational Background



Research Staff - Scientists/Engineers





Expertise of research staff

In the area of Agro and Food Technology the Institute has considerable expertise in food processing, post harvest technology, industrial microbiology, plant tissue culture, medicinal and aromatic plants and essential oils and spices. In the Materials field, ceramics, rubber, plastics and wood technology are areas in which we have developed expertise. In the Environmental area our strength lies in industrial pollution control – solid, air and water including waste water, energy and environmental monitoring including noise and vibration monitoring.

As one of the leading testing and measurement laboratories in the country, ITI has analytical expertise in chemical, microbiological and physical testing of a variety of samples. ITI is also one of the very few laboratories in the country that provide calibration and measurement services. Over the years our laboratory staff has also developed expertise in laboratory quality management systems. The Research staff also has expertise in information management and corporate management.

Executive Staff

Director General

Muditha Liyanagedara (acting)
BSc(Peradeniya), MPhil (Peradeniya) PhD(Seoul)

Additional Director General, Research & Development

J K R R Samarasekera (Ms)
*BSc(Hons)(Colombo), PhD(Rothamsted), CChem,
MIChemC, MIBiol*

Additional Director General, Technical Services

A S Pannila
*BSc(Peradeniya), MPhil(Kelaniya), MIM(UK),
MIP (SL), CPhys(SL)*

Additional Director General, Administration & Operation

K A S P Kaluarachchi
*BSc(B.Ad)(Spl)(Sri Jayewardenepura), CBA(ICASL),
MAAT, Postgraduate Dip. in Mang.*

RESEARCH & DEVELOPMENT

FOOD TECHNOLOGY SECTION

Senior Deputy Director, Food Technology Section/Research Fellow

I G N Hewajulige (Ms)
*BSc(Hons)(Peradeniya), MPhil(Colombo),
PhD(Colombo)*

Principal Research Scientist

H M T Herath (Ms)
*BSc(Hons)(Peradeniya),
MPhil (Sri Jayewardenepura), MIChemC*

Senior Research Scientists

P N R J Amunugoda
BSc(Spl)(Peradeniya) PhD(Open University)

Research Scientists

S S K Madage
BSc (Peradeniya)

A M C U Binduhewa (Ms)
BSc(Peradeniya), MSc(Sri Jayawardenepura)

K V T Gunawardhana
BSc(Spl)(Hon)(Peradeniya)

D M W D Divisekara(Ms)
BSc (Bangalore), MSc (Bangalore)

E N Wijedeera (Ms)
BSc(Spl)(Peradeniya)

W K S M Abeysekera (Ms)
*BSc(Spl)(Hons)(Peradeniya), MSc(PGIA),
PhD(Colombo)*

M M N P Gunasekera
BSc(Spl)(Hons)(Colombo)

S A Fernando (Ms)
BSc(Spl)(Hons)(Colombo)

R Sutharasana (Ms)
BSc(Hons)(Jaffna)

W D W Samaranyake
BSc(Spl)Hons)(Sri Jayawardenepura)

D U Rajawardana (Ms)
BSc(Bangalore), MSc(Peradeniya)

S A S Jayawardene (Ms)
BSc.(Spl) (Sri Jayawardenepura)

R C Pitipanaarachchi (Ms)
*Grad IChemC, BSc(Open University),
MSc(Sri Jayawardenepura), CChem*

Research Engineers

S G Walliwala (Ms)
BSc (Eng)(Moratuwa), MSc(Moratuwa)

A B G C J de Silva (Ms)
BSc (Eng)(Moratuwa)

Laboratory Technologists

G D S K Rajapakse (Ms)
LTCC (ICChemC)

M G D S Perera (Ms)
LTCC(ICChemC), Dip.Agri(Aquinas)

Technical Officers

D M K Aponso (Ms)
LTCC (ICChemC)

W U D Medis
LTCC(ChemC)

HERBAL TECHNOLOGY SECTION

Senior Deputy Director, Herbal Technology Section

Vacant

Research Fellow

G A S Premakumara
BSc(Colombo), PhD(Colombo), CBiol, MIBiol, MIChemC

Principal Research Scientists

R M Dharmadasa
BSc(Hons)(Ruhuna), MPhil(Sri Jayewardenepura), PhD (Sri Jayawardenepura,) MIBiol,

P Ranasinghe
BSc(Hons)(Peradeniya), MPhil(Colombo), PhD (Colombo), MIBiol

C Wijesiriwardena
BSc(Bangalore), MSc(Gujarat), PhD(Gujarat)

S Chelvendran (Ms)
BSc(Spl)(Hons)(Jaffna), PhD(Peradeniya)

Senior Research Scientists

L D A M Arawwawala
BSc(Hons)(Peradeniya), MSc(Sri J'pura) MPhil(Peradeniya), PhD(Kelaniya, MIBiol, AIChemC

Research Scientists

W P K M Abeysekera (Ms)
BSc.(Spl)(Hons)(Colombo)PG Diploma (Colombo)

H D Weeratunga
BSc.(Spl)(Colombo), MSc (Midway)

H D S M Perera (Ms)
BSc.(Spl)(Colombo)

U I Medawatta (Ms)
BSc(National University, Republic of Korea)

W A D D Wasalamuni (Ms)
BSc.(Spl) (Peradeniya)

Laboratory Technologist

P I P K Fernando (Ms)
LTCC (ICChemC)

V S Bandara (Ms)
LTCC(Merit)(ICChemC), Grad IChemC, MRSC(UK)

Administrative Officer

W S K Fernando (Ms)

MATERIALS TECHNOLOGY SECTION

Senior Deputy Director - Materials Technology Section

Vacant

Head/Principal Research Scientist

I R M Kottegoda (Ms)
BSc(Colombo), MPhil(Sri Jayewardenepura), PhD(Colombo)

Principal Research Scientists

P N Perera
BSc(Colombo), MSc(Easter Illinois University), PhD(Purdu University)

Research Scientists

S Weeraratne
Grad IChemC, MSc(Colombo), CChem, MIChemC

L D C Nayanajith
BSc(Chem)(Hons)(Peradeniya)

C H Manoratne
BSc(Rajarata), MPhil(Peradeniya)

M D Y Milani (Ms)
BSc(Spl)(Colombo), MSc(Moratuwa)

K S P Karunadasa
BSc(Spl)(Hons)(Peradeniya)

I P L Jayarathne
BSc(Peradeniya), PhD(Peradeniya)

Research Engineer

H C D P Colombage
BSc(Eng)(Moratuwa)

J T S T Jayawardene
BSc(Eng)(Moratuwa)

ENVIRONMENTAL TECHNOLOGY SECTION

Senior Deputy Director, Environmental Technology Section

Vacant

Head/Principal Research Engineer

W R K Fonseka
BSc(Eng)(Hons)(Moratuwa), MSc(Delft)

Principal Research Engineer

N A T D D Gunasekera
BSc(Eng)(Moratuwa), Associate Member (IESL)

Senior Research Engineer

W J K D Ranpatige (Ms)
BSc(Eng)(Hons)(Moratuwa), PGDip(Moratuwa)

Senior Research Scientist

P Subramanium
BSc (Jaffna) PhD(UK)

Research Scientist

R T Nilusha (Ms)
Bsc(Spl)(Sabaragamuwa)

E Y Fernando
*Bsc(Westminister) Post Graduate (Westminister)
PhD (Westminister)*

R D S S Ranatunga
BSc(Spl)(Sri Jayawardenepura)MPhil(Sri Jayawardenepura)

Research Engineers

W R L Wijesekera (Ms)
*NDT(Che.Eng.Tech)(Moratuwa), ECE
(Che.Eng)(UK)*

D M H S Dissanayake (Ms)
BSc(Eng)(Hons)(Moratuwa)Msc(Moratuwa)

K A N Kumarasinghe (Ms)
BSc(Eng)(Peradaniya)

Laboratory Technologist

K D Attanayake (Ms)
NDT(Moratuwa)

J A P V Jayasinghe
NDT(Moratuwa)

Administrative Officer

S A G L Perera

BIO TECHNOLOGY UNIT

Head, Bio Technology Unit

Vacant

Research Scientist

H H K Achala
BSc(Spl)(Colombo), MSc (Bio Tech)(Peradeniya)

K G W W Bandara
BSc.(Spl)(Colombo)

W W P Rodrigo (Ms)
*BSc (Open University), BSc(Peradeniya),
PhD(Colombo)*

P A D H N Gunathilake
BSc(Kelaniya), PhD(Kelaniya)

A M M H Athapattu (Ms)
BSc(Colombo), PhD(Kelaniya)

OFFICE OF THE ADDITIONAL DIRECTOR GENERAL - RESEARCH & DEVELOPMENT

Research Scientist

S N Thantrigoda
BSc (Colombo)

Senior Administrative Officer (Admin)

M A C P Perera (Ms)

TECHNICAL SERVICES

CHEMICAL & MICROBIOLOGICAL LABORATORY

Senior Deputy Director - Chemical & Microbiological Laboratory

Vacant

Head/Principal Research Scientist

J K A B Wijegunasekara
BSc(Spl)(Peradeniya), MPhil(Wales)

Principal Research Scientist

W A J Sajeewika Perera (Ms)
BSc(Spl)(Hons)(Kelaniya), MSc(Kelaniya)

M N A Mubarak
BSc(Spl)(Hons), MSc(Delft)

Senior Research Scientists

K S Weerakkody
BSc(Peradeniya), MSc(Kelaniya)

Research Scientists

S H S Karunaratne (Ms)
BSc(Bangalore), MSc(Kelaniya)

G V V Liyanaarachchi (Ms)
BSc(Spl)(Hons)(Colombo)

P S F Perera (Ms)
LTCC (ICChemC), BSc(Peradeniya),MSc(Colombo)

M R P Dassanayake(Ms)
BSc(Spl)(Hons)(Sri Jayawardenepura)

S K Liyanage(Ms)
BSc(Kelaniya), MSc(Kelaniya)

G U Chandarasiri
BSc(Spl)(Hons)(Sri Jayawardenepura)

W D K Mahatantila (Ms)
BSc(Sabaragamuwa),MPhil(PGIS),PhD(Japan)

D A T W K Dissanayake
BSc(Spl)(Hons)(Peradeniya)

H P E de Zoyza (Ms)
*BSc(Spl)(Sri J'pura) Prof. Diploma(CIM),
Diploma in Quality Management (SLSI)*

Laboratory Technologists

R P D C J Cooray (Ms)
LTCC (Merit)(ICChemC)

Y A Pitawela (Ms)
LTCC (Hons)(ICChemC)

P K G De Alwis (Ms)
LTCC (ICChemC)

I Jayakody (Ms)
GIC, LTCC(ICChemC)

Senior Technical Officers

J M M Herath (Ms)
LTCC (ICChemC)

R M S Ratnayaka (Ms)
LTCC (ICChemC)

C K Wickramasinghe (Ms)
LTCC (ICChemC)

Y M C Piyathilaka (Ms)
LTCC (ICChemC)

Technical Officers

S P Hettiarachchi
LTCC, DLTC(ICChemC)

H A A Perera
LTCC(ICChemC), Dip. in Management Programme

H M K Pathirana
BSc(Kelaniya)

H K Alahakoon
LTCC(ICChemC), BSc(Open University)

C Vidyaratne
BSc(Open University)

Senior Administrative Officer (Admin)

B M S Delwala (Ms)

MATERIALS LABORATORY

Senior Deputy Director - Materials Laboratory

Vacant

Senior Research Engineer

A A M T Adikari
BSc(Hons)(Eng)(Moratuwa)

Research Engineer

C N Vitharana (Ms)
BSc(Hons)(Eng)(Moratuwa)

L P C Ranasinghe
BSc(Hons)(Eng)(Moratuwa)

K H R Sajeewani (Ms)
BSc(Moratuwa)

Research Scientists

L K S Roshanie (Ms)
BSc(Hons)(Colombo)

P W C Dilhani (Ms)
BSc(Spl)(Hons)(Sri Jayawardanepura)

V A D C Wijetunga
BSc(Spl)(Sri Jayawardanepura)

Laboratory Technologists

K Weeratunga
NDT (Moratuwa), DipPRI(SL)

K Silva (Ms)
LTCC (ICChemC), BSc(Open University)

Senior Technical Officer

I Withana (Ms)
LTCC (ICChemC)

INDUSTRIAL METROLOGY LABORATORY

Senior Deputy Director - Industrial Metrology Laboratory

Vacant

Head/Principal Research Scientist

W M S Wijesinghe
*BSc(Hons)(Sri Jayawardanepura), MSc(Malaysia),
PhD.(Korea) CPhys(SL), MIP(SL)*

Senior Research Scientist

N P Liyanawaduge
*BSc(Spl)(Hons)(Ruhuna), MPhil(Ruhuna), PhD
(Peradeniya), MACS*

Research Scientist

G D T A Pathiragoda (Ms)
BSc(Spl)(Hons)(Colombo)

M R Motha (Ms)
BSc(Spl)(Hons)((Sri Jayawardanepura)

R A D S D Ranasinghe
*BSc(Spl)(Hons)(Sri Jayawardanepura),
Dip. in Inf. Tech(Colombo)*

Technical Officer

T N P K Peiris
BSc (OUSL)

ELECTRO TECHNOLOGY LABORATORY

Senior Deputy Director - Electro Technology Laboratory

Vacant

Head/Principal Research Engineer

R M Weerasinghe
BSc(Eng)(Peradeniya), MSc (AIT -Thailand)

Senior Research Scientists

C M Kalansuriya
*BSc(Hons)(Open University), LIP(SL),
M Phil(Colombo)*

Research Engineer

R P K Wijewardena
BSc(Eng)(Moratuwa)

Research Scientists

M S M Aroos
BSc(Spl)(Hons)(Kelaniya)

K A C Perera
BSc(Spl)(Hons)(Ruhuna)

Laboratory Technologist

R A S Dewapriya
NDT(Moratuwa)

Senior Technical Officer

S N W M Surasena
LTCC (ICChemC), MIPRE, City & Guilds(London)

Technical Officer

L A M N Pushpakumara
BSc(Hon)(Peradeniya)

L D D C Jayaratne

**OFFICE OF THE ADDITIONAL
DIRECTOR GENERAL - TECHNICAL
SERVICES****Senior Administrative Officer(Admin)**

Y Y W De Silva (Ms)

Administrative Officer (Admin)

P G P Jayawardene (Ms)

ADMINISTRATION & OPERATION**DIRECTOR GENERAL'S OFFICE****Institute Secretary**

A M K R Jayatilaka (Ms)
*Attorney-at-law & Notary Public, Post Attorney
Dip. in Intellectual Property Law*

Confidential Secretary

Vacant

Personal Assistant/ Secretary to Chairman

G Edirisuriyage (Ms)
Dip. in communicational skills

FINANCE DEPARTMENT**Senior Deputy Director Finance**

D L C A Gunaratne
MBA Finance (Aus) ACMA, PG Dip BM, ACBA

Accountant

Mr. D N Weerakoon
HNDA, ICASL-Infor, CMA-DIP

Accounts Officers

R Malavipathirana (Ms)
IAB(London)

L K Lalitha (Ms)
IAB(London)

M H N Tissera (Ms)
BBMgt (Spl)(Accountancy)(Kelaniya), ICASL – FI

Accounts Officer/Stores Officer

H H Gurugamage (Ms)
ICASL(Strategic I)

Senior Administrative Officer (Admin)

W A Malani (Ms)

STORES

J K A S L Jayasooriya

SUPPLIES**Senior Supplies Officer**

M H K Dilrukshi (Ms)
Dip.(Mass communication)

Administrative Officers (Admin)

B P N Peiris (Ms)
Dip Sup Mat Mang

D L Gamlath (Ms)
BSc(Spl) Public Management (Sri J'pura)

HUMAN RESOURCES DEPARTMENT**Senior Deputy Director – Administration & Human Resources**

I H Kathriarachchi (Ms)
*BSc(Spl)(Sri J'pura), MBA(Colombo), PDG in Inter
Relations (BCIS), HNDA (Sri Lanka Tech.Coll.)*

Senior Administrative Officers (HR)

I Kannangara (Ms)
PQHRM(IPM)

S M G A Samarakoon (Ms)
CCHRM(IPM)

Administrative Officer

L Ranaweera (Ms)

U A Thilakasiri
BLE (Colombo)

**MARKETING & BUSINESS
DEVELOPMENT DEPARTMENT****Senior Deputy Director, Marketing & Business Development**

N G M Wijemanne (Ms)
*BSc(Open University), MBA (Australian Inst. of
Business Administration)*

Marketing Officer

K A I H Fernando
BSc (Sri Jayawardenepura)

ENGINEERING SERVICES

Head, Engineering Services

A S Arachchi
BSc(Eng)(Moratuwa), PG Dip.

Technical Officer

M S Mannapperuma

Premises Superintendent

W H R J Jayakody
NDT, Dip. in Info. Tech (SLIT)

Administrative Officer (Admin)

K P R T Perera (Ms)

QUALITY ASSURANCE DEPARTMENT

Senior Deputy Director - Quality Assurance Department

Vacant

OIC/Principal Research Scientist

H P P S Somasiri
BSc(Spl)(Peradeniya) MSc(Peradeniya), CChem, MChemC

Research Scientist

D V A Nilukshi (Ms)
BSc(Spl)(Hons)(Sri Jayawardenepura)

S A M K Jayathilake (Ms)
BSc(Spl)(Hons)(Sri Jayawardenepura)

H G T H Jayatunga (Ms)
BSc(Hons)(Kelaniya)

F H Salahudeen (Ms)
BSc(Spl)(Colombo)

INFORMATION SERVICES CENTRE

Senior Deputy Director, Information Services Centre

Vacant

Principal Research Scientists

P M Jayasinha (Ms)
GradIChemC, MPhil(Open University), CChem, MChemC, ASLLA

Senior Research Scientists

K H T Abeysekara (Ms)
BSc(Spl)(Hons)(Kelaniya), MPhil(Kelaniya), MLS(Colombo)

Research Scientist

E M S Isanka (Ms)
BSc(Spl)(Hons)(Peradeniya), MSc(Colombo)

Librarian

N S Sangasinghe (Ms)
ASLLA

Assistant Librarian

W W P N Geekiyanage (Ms)
ASLLA

Senior Administrative Officer (Admin)

G S M Senanayake (Ms)

Administrative Officer (Admin)

R Kapurubandara (Ms)

COMPUTER UNIT

Laboratory Technologist

N K Alagoda (Ms)
NDT (Moratuwa)

Computer Systems Administrator

S S Wickramasekara
Certificate (NAITA), Certificate (NIE)

INTERNAL AUDIT

Chief Internal Auditor

Vacant

Senior Internal Audit Officer

D T M C Jayasinghe (Ms)

B M Roberts (Ms)

*IABK (London), Dip.Com.based Acctg
(Professional Accounting Institute, Colombo)*

PRODUCTIVITY UNIT

Technical Officer

M M C B Nawarathna
DLTC

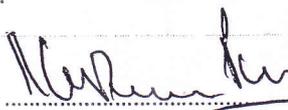
INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER, 2014

	NOTE	2014 Rs.	2013 Rs.
ASSETS			
Current Assets	3		
Cash and Cash equivalents	3D	522,158,167	415,712,537
Trade and other receivables	3B	107,147,558	67,765,579
Inventories/Stocks	3A	11,816,643	9,612,559
Prepayments	3C	10,703,809	9,899,312
		651,826,177	502,989,987
Non-current Assets			
Property, Plant and Equipment	1	478,199,659	431,170,741
Other Assets (Work-in progress)	2	288,876,617	246,297,599
		767,076,276	677,468,340
Total Assets		1,418,902,453	1,180,458,326
LIABILITIES			
Current Liabilities	4		
Payables	4A	32,659,189	19,695,200
Accrued Expenses	4B	44,200,928	55,515,132
Provision for Gratuity	5C	28,409,557	31,243,698
		105,269,673	106,454,031
Non-Current Liabilities	5		
Payable	5A	24,174,687	24,354,599
Differed Income	5B	659,486,872	553,413,115
Provision for Gratuity	5C	60,229,918	48,782,499
		743,891,477	626,550,213
Total Liabilities		849,161,150	733,004,244
Total Net Assets		569,741,304	447,454,083
NET ASSETS / EQUITY			
Accumulated Fund	6A	385,380,906	270,684,254
Reserves - Donations	6B	55,517,968	47,927,399
Revaluation Surplus	6C	128,842,430	128,842,430
Total Net Assets / Equity		569,741,304	447,454,083

The Accounting policies on pages 05 to 06 and Notes on pages 07 to 31 form an integral part of these Financial Statement. The Board of Directors is responsible for the preparation and presentation of these Financial Statements. The Financial Statements were approved by the Board of Directors and signed on their behalf.


 Mr. D.L.C.A. Gunaratne
 (Senior Deputy Director - Finance)


 Dr. M. Liyanagedara
 (Actg. Director General)


 Mr. Niroshana Perera
 (Chairman)

INDUSTRIAL TECHNOLOGY INSTITUTE
STATEMENT OF INCOME FOR THE PERIOD ENDED 31ST DECEMBER, 2014
ILLUSTRATING THE CLASSIFICATION OF EXPENSES BY NATURE

	NOTE	2014 Rs.	2013 Rs.
Operating Revenue			
Recurrent Grant		190,000,000	176,575,000
Amortization of Government Grants - Depreciation	5A1	58,440,597	58,730,496
R & D Projects & HRD	5A1	17,091,229	14,043,274
Rehabilitation & Improvements	5A1	11,876,690	15,099,205
Income - Revenue	7A	232,144,090	207,536,869
- Other Income	7B	26,104,989	39,295,586
		535,657,594	511,280,431
Operating Expenses			
Personnel Emoluments	8A	260,748,814	256,819,933
Travelling	8B	4,191,021	4,181,665
Supplies and Consumable used	8C	30,136,066	23,092,327
Maintenance	8D	22,415,980	20,368,798
Contractual Services	8E	42,955,368	41,277,417
R & D Projects & HRD	8F	17,091,229 ✓	14,043,274
Depreciation	8G	58,440,597 ✓	58,730,496
Other Operating Expenses	8H	32,471,388	35,050,729
Rehabilitation & Improvements	8I	11,876,690 ✓	15,099,205
Disposal & write Offs		(401,688)	3,436,556
Damage & Losses		33,644	2,331
Total Operating Expenses		479,959,107	472,102,732
Surplus/(Deficit) from Operating Activities		55,698,487	39,177,699
Net Surplus / (Deficit) for the period		55,698,487	39,177,699

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
THE STATEMENT OF CHANGES IN EQUITY FOR THE YEAR ENDED
31st DECEMBER , 2014

	Accumulated Fund	Reserves Donations	Re-Valuation Surplus
	Rs.	Rs.	Rs.
Balance as at 01.01.2014	270,707,072	47,927,399	128,842,429
<u>Changes in Equity for 2014</u>			
Surplus for the period	55,698,487	-	-
Amortization of Non - Current Assets Up to 2002	(2,853,612)	-	-
Donation received during the year	-	23,398,188	-
Amortization of Non - Current Donated	-	(15,807,619)	-
Previous year adjustment	61,828,959		
Balance as at 31.12.2014	385,380,906	55,517,968	128,842,429

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
CASH FLOW STATEMENT FOR THE YEAR ENDED 31ST DECEMBER, 2014

	2014 (Rs.)	2013 (Rs.)
Cash Flow From Operating Activities		
Operating Surplus/(Deficit)	55,698,487	39,177,699
Depreciation	58,440,597	58,730,496
Profit/(Loss) on Property Disposal	-	(747,293)
Gratuity Provision	16,706,456	19,300,277
Incentive Provision	11,846,320	
Provision for Audit Fee	792,157	
Interest Received	(17,940,764)	(30,701,649)
Capital Grants Amortized	(87,408,516)	(87,872,976)
Operating Surplus/(Deficit)	38,134,737	(2,113,446)
<u>Change in Working Capital</u>		
(Increase)/Decrease in Inventories	(2,204,085)	2,804,744
(Increase)/Decrease in Debtors	(38,980,291)	45,146,581
(Increase)/Decrease in Prepayments	(804,497)	(6,324,154)
(Decrease) /Increase in Payables-Non Current	(581,600)	(12,850,515)
(Decrease) /Increase in Payables-Current	12,963,988	23,974,424
(Decrease) /Increase Accrued Expenses	(11,314,204)	19,381,680
Cash Generated from operating Activities	(2,785,951)	70,019,314
Gratuity Paid	(8,070,361)	(11,095,284)
Net Cash Flow From Operating Activities	(10,856,312)	58,924,030
<u>Cash Flow From Financing Activities</u>		
Capital Grants Received	236,650,000	146,700,000
Interest Received on Fixed Deposit	15,350,475	22,812,315
Net Cash Flow From Financing Activities	252,000,475	169,512,315
<u>Cash Flow From Investing Activities</u>		
Acquisition of Property Plant & Equipment - Purchases	(92,119,514)	(57,602,869)
Write Offes of PPE - Cost	-	12,171,918
Write Offes of PPE - Depreciation	-	(11,642,246)
Proceeds from sale of Assets	-	454,451
Other Assets (Work In Progress)	(42,579,019)	(97,746,825)
Net Cash Flow From Investing Activities	(134,698,533)	(154,365,570)
Net Cash Flow	106,445,630	74,070,775
Cash as at beginning of the year	145,486,537	71,415,762
Cash at the end of the year (Note - 22)	251,932,167	145,486,537

ACCOUNTING POLICIES AND SIGNIFICANT EVENTS – 2014

1. GENERAL

The Statement of Financial Position as at 31.12.2014 and the related Financial Statements have been prepared on the historical cost convention, in accordance with the Sri Lanka Public Sector Accounting Standards.

Retirement benefits to employees are provided according to the laid down statutory requirements. Institute's contribution for Provident Fund and Employees' Trust Fund is 15% and 3% respectively. Gratuity Provision is made according to the Gratuity Act No. 12 of 1983. This provision is not externally funded.

2. BASIS OF PREPARATION

The financial statements have been in accordance with the Sri Lanka Public Sector Accounting Standards for the year ended 31st December 2014.

3. ACCOUNTING FOR GOVERNMENT GRANTS

Recurrent Grant from the General Treasury has been recognized as revenue in the statement of financial performance. Since year 2003 Capital Grant has been shown under deferred income in conformity with the formats specified in Circular No. PED/19. Depreciation for the year is funded by amortizing the following.

Fund	Depreciation for the year
Differed Income	Non-Current Assets acquired after 2003
Government Grant - Capital	Non-Current Assets acquired before 2003
Donation & Grants	Non-Current Assets relating to Donations

4. ASSETS - BASIS OF THEIR VALUATION

4.1 Fixed Assets

Funds for acquisition of Fixed Assets are provided by the General Treasury.

Fixed Assets have been shown at cost, less depreciation. Assets are depreciated at the following rates:

Buildings	5%
Plant and Machinery	10%
Office Equipment and Furniture	5%
Vehicles	20%
Computers	33 1/3%
Library Books and Journals	5%
Software and Other Assets	33 1/3%

Depreciation in respect of motor vehicles, computers and software was 10% before the 1st of January 1999 and was revised to 20% and to 33.33% respectively after that date.

Depreciation is charged from the date of purchase until the date of disposal.

4.1.1

Assets received as donations or purchased with Government Grant are amortized at the rates of depreciation referred above.

4.2 Debtors

Debtors and other recoverable are stated at the value estimated to be realized. The debtors consist of sundry trade debtors and the debts of ex-employees who are in breach of bonds and agreements.

4.3 Stocks

Stocks are shown at the Book Value. Stock issues are valued at the simple average basis.

4.4 Savings Bank Deposit Account

As per instructions given by Ministry of Finance & Policy Planning Fidelity Bonds invested with the Bank of Ceylon for Provision for Gratuity and 03 months Personal Emolument Cost.

4.5 Deposits on accounts of Gratuity Provision

As per the statutory requirement an amount of Rs. 100 Million is kept in deposit account to meet the Gratuity obligations. This deposit is kept with the approval of the general treasury.

4.6 Crown Land

The Land occupied by the institute is referred as Crown land and belongs to the state.

5. LIABILITIES AND PROVISIONS

Current Liabilities are those which fall due for payments on demand or within one year from the Balance Sheet date.

4.1 Funds for ITI Chairman's Science Award Fund

This fund is externally invested.

6. INCOME AND EXPENDITURE ACCOUNT

Income and Expenditure are based on accrual accounting basis.

7. PROVISION FOR DOUBTFUL DEBTS

Full provision for doubtful debts is made on out standings for more than one year. However in cases of specific debts where it is considered that a higher provision is prudent such additional provision has also been made.

8. PROVISION ON GRATUITY

The provision on gratuity is made after completion of one year of service.

9. LONG TERM RESEARCH AND DEVELOPMENT

There are more than sixty Research & Development Projects are in progress which is funded by the general treasury. Apart from Treasury grants there are funded projects sponsored by local agencies such as National Science Foundation (NSF) and National Research Council (NRC)

10. VIDHATHA PROGRAM

During the year under review number of employees of ITI participated in the Vidhatha Program conducted by the Ministry of Science & Technology, of which the cost was reimbursed by the Line Ministry.

**Schedule on Buildings, Plant Machinery & Lab Equipment, Furniture Fittings, Vehicles, Computer Equipment
Library Books & Journals , Software & Other Assets as at 31.12.2014**

NON -CURRENT ASSETS
NOTE - 01

	Buildings 5%	Plant Mach. & Lab Equip. 10%	Furni. Fittings & Office Equi. 5%	Vehicles 20%	Computer Equipment 33.33%	Library Book & Journals 5%	Soft Ware & Accessories 33 1/3%	Other Assets 33 1/3%	TOTAL
Cost									
Balance as at 01.01.2014	229,988,041	668,100,727	44,733,359	60,834,006	45,913,890	78,275,271	13,581,898	4,512,594	1,145,939,786
Additions -									
Purchases	1,455,750	71,983,736	9,517,923	13,350,000	8,003,560	573,702	-		91,534,671
Donations		584,843							13,350,000
Donations - TG									584,843
Balance as at 31.12.2014	231,443,791	740,669,306	54,251,282	74,184,006	53,917,450	78,848,973	13,581,898	4,512,594	1,251,409,300
Less :									
Depreciation									
Balance as at 01.01.2014	94,258,491	437,384,045	18,332,620	51,823,061	41,174,010	54,245,881	13,038,344	4,512,594	714,769,045
Add:									
Depreciation for 2014	10,868,428	33,631,325	1,925,692	4,668,304	4,631,379	2,417,027	298,443		58,440,597
Balance as at 31.12.2014	105,126,918	471,015,369	20,258,312	56,491,365	45,805,389	56,662,908	13,336,786	4,512,594	773,209,641
Balance as at 31.12.2014	126,316,873	269,653,937	33,992,970	17,692,641	8,112,062	22,186,065	245,111	-	478,199,659

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2014

	2014	2013
	Rs.	Rs.
<u>Other Assets (work in progress) - (Note - 2)</u>		
Work in Progress - General	758,466	120,000
Working Progress - Modern R & D Complex, Malambe	268,774,498	234,341,658
ISO 17043 Accreditation status to ITI's PECMA PT scheme	167,684	140,662
NCE in Food Research , Technology and Food Safety	102,177	
NCE for Chemical and Residual Analysis	102,177	
NCE for Natural and Indigenous Knowledge based products	102,177	
Treasury Grant Projects	18,869,439	11,695,279
	288,876,617	246,297,599

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT OF FINANCIAL POSITION T AS AT 31ST DECEMBER 2014

	NOTE	2014 Rs.	2013 Rs.
<u>Current Assets (Note - 3)</u>			
<u>Consumable Stores</u>			
Inventory - Chemical		6,073,098	4,919,449
Inventory - Laboratory Ware		4,262,404	3,487,784
Inventory - Mis. Supplies		619,587	509,464
Inventory - Electronic Components		6,013	6,013
Inventory - Stationery		855,541	689,849
	(Note - 3A)	11,816,643	9,612,559
Purchase Advances - Local Supplies	15A	1,028,458	497,666
Purchase Advances - Foreign Supplies	15 A	58,587,452	16,217,323
Sundry Debtors	17	18,456,599	20,634,884
VAT Receivable		235,301	2,635,926
Welfare Receivable		251,250	251,250
Trade Debtors	18 A		
(Less) Provision for Bad debts		3,155,105	1,602,500
Staff Advances	20	21,091,261	21,847,709
Deposits	21	3,310,467	3,232,546
Funded Projects	23	1,031,665	845,776
Obsolete Assets for Disposal		-	-
	(Note - 3B)	107,147,558	67,765,579
Pre-payments	(Note - 3C) 19	10,703,809	9,899,312
Fidelity Bonds (LCs), Gratuity Obligation & Malabe Project Funds		270,226,000	270,226,000
Cash & Bank Balance	22	251,932,167	145,486,537
	(Note - 3D)	522,158,167	415,712,537

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT OF FINANCIAL POSITION AS AT 31ST DECEMBER 2014

	NOTE	2014 Rs.	2013 Rs.
<u>Current Liabilities (Note - 4)</u>			
Trade Creditors	18 B	2,231,855	1,678,150
Sundry Creditors	15B	2,031,335	226,247
Tender & Security Deposits	24	553,998	446,626
VAT Payable		2,475,723	2,475,723
Staff Group Medical Insurance Employee Control A/C		951,385	1,047,084
Funded Projects	23	24,414,894	13,821,372
	(Note - 4A)	32,659,189	19,695,200
Accrued Expenses	(Note - 4B) 25	44,200,928	55,515,1
Provision for Gratuity	(Note - 5C) 26	28,409,557	31,243,698
<u>Non-Current Liabilities (Note - 5)</u>			
Provision for Gratuity	(Note - 5C) 26	60,229,918	48,782,499
Reserves - Bond Defaulters		7,817,765	7,817,765
Science Award Fund		331,067	307,279
Staff Activity Fund		1,005,790	1,209,490
Kasper Unit Fund		20,065	20,065
Gratuity Fund		15,000,000	15,000,000
	(Note - 5A)	24,174,687	24,354,599

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO FINANCIAL POSITION AS AT 31.12.2014

<u>Amortization of Government Capital Grants (5A1)</u>		Rs.	Rs.
<u>(A/C - 604440-70700)</u>			
Depreciation	:- Non-Current Assets Upto 2002	2,853,612	
	Non-Current Assets 2003 Onwards	39,779,365	
	Non-Current Assets Donated	15,807,619	58,440,597
R & D Projects & HRD	:- Treasury Granted	6,418,217	
	Research & Development	4,426,671	
	HRD - Training	976,572	
	Library Science Directory	5,269,769	17,091,229
Rehabilitation & Improvement	:- Building & Structure	6,264,697	
	Plant Machinery and Equipment	4,418,129	
	Improvement of Vehicles	22,600	
	Improvement of Other Capital Assets	1,171,263	11,876,690
			87,408,516
<u>Differed Income (Note - 5B)</u>		Rs.	Rs.
<u>Government Contribution - Capital - 2003 Onwards)</u>			
<u>(A/C - 300102-29755 & A/C - 300104)</u>			
Balance as at 01.01.2014		553,413,115	
Less- Previous year adjustment		(61,828,959)	
Additions during the year		236,650,000	728,234,156
Schedule Adjustment			
Amortization (Depreciation of Non-Current Assets)		(39,779,365)	
Amortization (Research & Development- Accreditation)		(4,426,671)	
Amortization (Treasury Granted Project Expenditure)		(6,418,217)	
Amortization (Rehabilitation Expenditure)		(11,876,690)	
Amortization (HRD)		(976,572)	
Amortization Library Science Directory- Annual Sub		(5,269,769)	
			(68,747,284)
Balance as at 31.12.2014			659,486,872
<u>Accumulated Fund (Note - 6A)</u>		Rs.	Rs.
<u>Government Contribution Capital - Upto 2002 and</u>			
<u>Income & Expenditure Account Balance)</u>			
<u>(A/C - 300101-30000 & A/C - 300300-30400)</u>			
Government Contribution Capital Upto 2002 - 01.01.2014		412,101,927	
Income & Expenditure Account - 01.01.2014		(79,565,896)	332,536,031
Schedule Adjustment			
Amortization - Capital		(2,853,612)	
Surplus for the period of 2014		55,698,487	
Balance as at 31.12.2014			52,844,875
			385,380,906

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
DONATIONS AND GRANTS AS AT 31ST DECEMBER, 2014

NOTE - 6B

Donations	Balance 01.01.2014	Additions during the year	Amortizations during the year	Balance 31.12.2014 Rs.
UNIDO - AID	4,217,671	-	(1,468,770)	2,748,901
Capital Reserves	1,523,209	-	-	1,523,209
ADB Donation	13,954,545	-	(4,977,172)	8,977,373
GMBH	51,750	-	(25,875)	25,875
Donation-Ensilage Tank	913,366	-	(456,683)	456,683
Gift from JICA - FP 42	66,363	-	(7,374)	58,989
Gift from MHIM - FP 36	5,325	-	(592)	4,734
Gift from CARP FP 48	4,050	-	(450)	3,600
Gift from TVEC	26,228	-	(2,914)	23,313
Japanese 2KR Project	10,146,993	-	(4,681,912)	5,465,081
Gift from UNDP	2,540,799	-	(650,222)	1,890,577
Gift from UNDO PROJECT	272,505	-	(68,126)	204,379
Int.Atomic EA Donation	3,405,227	-	(567,538)	2,837,689
NSF Tsunami Project	4,925	-	(985)	3,940
NSF - Accessories to SEM	777,000	-	(111,000)	666,000
ICBR Int.Centre for Bamboo ration	1,628,469	-	(271,412)	1,357,058
Ministry of rural industries & self	30,695	-	(5,116)	25,579
Common Fund commodities	1,291,558	-	(493,188)	798,370
Treasury Grant Vehicle Cab (MOTR)	5,303,279	-	(1,500,000)	3,803,279
Donation to BTU	1,763,442	-	(195,938)	1,567,504
Treasury Grant Vehicle Car (CHOGAM)		8,150,000	(317,068)	7,832,932
Treasury Grant Vehicle Car & Van		4,043,674	(2,216)	4,041,458
Gift from Lion Brewary		11,204,514	(3,070)	11,201,444
TOTAL	47,927,399	23,398,188	(15,807,619)	55,517,968

**INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
REVALUATION BALANCE AT AT 31.12.2014**

Note -6C

	2014	2013
	Rs. Cts.	Rs. Cts.
2008 Re-Valuation		
Plant Mach. & Lab Equipment	26,950,099	26,950,099
Furni. Fittings & Office Equip.	6,404,627	6,404,627
Computer Equipment	(7,197,654)	(7,197,654)
	<u>26,157,073</u>	<u>26,157,073</u>
2009 Re-Valuation		
Buildings	102,685,357	102,685,357
	<u>128,842,430</u>	<u>128,842,430</u>

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT OF INCOME
FOR THE REPORTING PERIOD ENDED 31ST, DECEMBER 2014

	2014		2013	
<u>Revenue (Note - 7A)</u>	Rs.	Rs.	Rs.	Rs.
Income -Standard Services	166,332,624		139,917,710	
Less: Refund	417,075	165,915,549	400,253	139,517,457
Income -Consultancy Service		11,823,188		12,903,090
Income-Technology Transfer		3,319,001		3,000,748
Income-Contract Projects	25,668,038		19,289,010	
Less: Expenditure - Sub Contract Projects	128,316	25,539,722	6,842,413	12,446,597
Income-Customised Services		14,496,894		28,575,904
Income-Training		10,672,783		10,056,250
Royalty Received		376,952		1,036,822
		232,144,090		207,536,869
<u>Other Income (Note - 7B)</u>				
<u>Other Operating Income</u>				
Income-Library	222,017		378,004	
Income - Other / General	6,636,631	6,858,647	6,650,218	7,028,222
<u>Other Non Operating Revenue</u>				
Interest on Staff Loan	860,337		801,765	
Interest on Investments (Projects Funds, Gratuity, LC Dposit)	17,940,764		30,701,649	
Contribution from Projects	191,420		702,358	
Income - % of Consultancy Fee	18,000		81,458	
Exchange Gain & losses	235,820	19,246,342	727,427	33,014,657
Less: Profit/(Loss) Sale of Assets		-		(747,293)
		26,104,989		39,295,586

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT OF INCOME
FOR THE REPORTING PERIOD ENDED 31ST, DECEMBER 2014

<u>Personnel Emoluments (Note - 8A)</u>	2014	2013
	Rs.	Rs.
Salaries & Wages	181,949,064	159,780,432
Casual Wages	2,678,236	2,424,908
Other Allowances		776,790
R & D Allowances	9,420,957	1,566,750
Employee Provident Fund	25,141,608	21,916,371
Employee Trust Fund	5,029,567	4,382,682
Gratuity	16,706,456	19,300,277
Overtime	4,828,355	2,702,475
Honorarium - G.B. Members	327,109	413,446
Medical Reimbursement	2,138,091	1,938,539
Incentive	3,066,003	9,354,897
Payment of Incentive on Circular No 380	8,780,317	31,998,330
Staff Group Medical Insurance	683,052	264,036
	<u>260,748,814</u>	<u>256,819,933</u>

Travelling (Note - 8B)

Travelling - Local	1,950,205	1,433,875
Travelling - Foreign	1,557,652	2,068,220
Travelling - Pool Transport	683,164	679,570
	<u>4,191,021</u>	<u>4,181,665</u>

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT INCOME
FOR THE REPORTING PERIOD ENDED 31ST, DECEMBER 2014

	2014 Rs.	2013 Rs.
<u>Supplies and Consumable used (Note - 8C)</u>		
Supplies - Chemicals	11,174,495	6,731,762
Supplies - Labware	6,549,968	3,453,940
Supplies -Electronic Components	176,754	48,965
Supplies - Stationery	2,454,563	2,362,751
supplies - Other	2,774,953	3,170,279
Supplies - Other / CRR	95,192	199,996
Safety Measures	209,793	249,835
Uniforms - Watchers, Drivers, Etc.	155,308	982,609
Welfare Including Sports	322,970	313,800
Gas	113,397	33,361
Vehicles / Fuel	6,108,673	5,545,029
	30,136,066	23,092,327
<u>Maintenance (Note - 8D)</u>		
Buildings & Premises	6,156,132	5,575,932
Plant & Machinery	6,594,721	5,282,240
Furniture & Equipments	1,210,826	1,898,869
Library Books		89,316
Laboratory ware	550,076	346,263
Computer	2,751,399	2,684,187
Canteen	61,256	20,955
Maintenance - Generator	243,395	169,954
Vehicles / General - Maintenance	4,847,096	4,299,080
Maintenance - Mobile Lab	1,080	2,000
	22,415,980	20,368,798
<u>Contractual Services (Note - 8E)</u>		
Electricity charges	29,402,081	29,395,039
Telephone & Internet charges	5,671,485	4,283,647
Postage Expenses	446,620	470,456
Rate & Taxes	1,682,604	1,682,604
Security Services charges	4,493,628	4,105,352
Water charges	1,258,950	1,340,320
	42,955,368	41,277,417

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT INCOME
FOR THE REPORTING PERIOD ENDED 31ST, DECEMBER 2014

	2014	2013
	Rs.	Rs.
<u>Projects & HRD (Note - 8F)</u>		
TG Expenditure	6,418,217	2,963,861
Research & Development (Accreditation)	4,426,671	4,861,743
HRD - Training	976,572	1,410,489
Library Science Directory Annual Sub	5,269,769	4,807,181
	<u>17,091,229</u>	<u>14,043,274</u>
<u>Depreciation & Amortisation Expenses (Note - 8G)</u>		
Buildings	10,868,428	10,825,911
Plant & Machinery	33,631,325	33,502,835
Furniture & Equipments	1,925,692	2,158,114
Computers	4,631,379	3,446,501
Vehicles	4,668,304	5,524,992
Software	298,443	771,826
Library Books	2,417,027	2,500,317
	<u>58,440,597</u>	<u>58,730,496</u>
<u>Rehabilitation Expenditure (Note - 8I)</u>		
Rehabilitation of Building and Structures	6,264,697	10,457,572
Rehabilitation of Plant Machinery and Equipments	4,418,129	2,640,700
Rehabilitation of Improvement of Vehicles	22,600	-
Rehabilitation of Improvement of Other Capital Assets	1,171,263	2,000,933
	<u>11,876,690</u>	<u>15,099,205</u>

INDUSTRIAL TECHNOLOGY INSTITUTE (SUCCESSOR TO CISIR)
NOTES TO STATEMENT INCOME
FOR THE REPORTING PERIOD ENDED 31ST, DECEMBER 2014

<u>Other Operating Expenses (Note - 8H)</u>	2014	2013
	Rs.	Rs.
Staff Training	1,876,003.17	921,878
Sampling Charges	3,274,900.00	2,025,261
Subsistence charges for outside works	2,139,088.00	
Payment of Subs. - Local / Foreign/Other	399,889.36	265,160
Laboratory Membership Fee (Local)	2,517,372.94	1,723,371
Honorarium	313,135.50	224,187
New Recruitments - Medical Examination Fee	211,000.00	72,050
Entertainment	106,855.24	251,402
Insurance	525,233.09	659,495
Printing	615,561.21	276,644
News Papers & Subs.	82,071.01	59,336
Audit Fees	792,157.00	720,000
Legal Fee	16,120.00	
Bank Charges	10,444.00	111,540
Credit Card Commission	62,248.40	27,331
Advertising	918,914.00	1,286,865
Publication - Annual Reports	27,867.50	471,182
Promotional & Publicity	1,520,092.25	785,750
Economic Tax	455,710.32	-
National Building Tax	4,645,035.35	4,330,024
Survey Fee - Board of Survey	185,672.76	147,450
Incidental Expenses	1,935.00	120,870
Patency & Consultancy Fee	209,520.00	162,484
Expenditure for Costing Assignment	294,808.00	184,391
Productivity Expenditure	9,175.00	-
Expenditure- Standard Services	1,980,237.26	5,059,404
Expenditure -Consultancy Services	985,980.98	1,103,077
Expenditure -Technology Transfer	55,070.82	79,615
Expenditure -Contract Project	1,716,257.21	3,068,836
Expenditure -Customised Services	321,535.66	1,184,425
Expenditure -Training	3,416,195.34	1,549,290
Clearing Charges	54,350.83	86,049
ITI Annual Research Symposium R & D	-	196,245
ITI Exhibition	171,147.66	293,943
Exhibition/Vidatha/Divi Neguma	1,911,510.36	
Technology Market Place - BMICH	-	318,698
Disallowed VAT	-	6,765,411
Stamp Duty	63,100.00	60,850
Provident Fund Stationeries	52,865.48	41,872
Donations	118,000.00	23,000
Miscellaneous Expenditure	223,312.98	28,257
CENTEC Expenditure -% Contribution	191,014.23	365,084
	32,471,387.91	35,050,729



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கணக்காய்வாளர் தலைமை அபிபதி திணைக்களம்
AUDITOR GENERAL'S DEPARTMENT



මගේ අංකය } LS/02/E/ITI/1/14
எனது இல. }
My No. }

ඔබේ අංකය }
உமது இல. }
Your No. }

දිනය }
திகதி }
Date }

28 September 2015

The Chairman

Industrial Technology Institute

Report of the Auditor General on the Financial Statements of the Industrial Technology Institute for the year ended 31 December 2014 in terms of Section 14(2) (c) of the Finance Act, No.38 of 1971

The audit of financial statements of the Industrial Technology Institute for the year ended 31 December 2014 comprising the statement of financial position as at 31 December 2014 and the income statement, statement of changes in equity and cash flow statement for the year then ended and a summary of significant accounting policies and other explanatory information was carried out under my direction in pursuance of provisions in Article 154(1) of the Constitution of the Democratic Socialist Republic of Sri Lanka read in conjunction with Section 13(1) of the Finance Act, No. 38 of 1971 and Section 40 of Part vii of the Science and Technology Development Act, No. 11 of 1994. My comments and observations which I consider should be published with the Annual Report of the Institute in terms of Section 14(2)(c) of the Finance Act appear in this report . A detailed report in terms of Section 13(7)(a) of the Finance Act was issued to the Chairman of the Institute on 15 May 2015.

1.2 Management's Responsibility for the Financial Statements

The management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Public Sector Accounting Standards and for such internal control as the management determines is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.



1.3 Auditor's Responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Sri Lanka Auditing Standards, consistent with International Standards of Supreme Audit Institutions (ISSAI 1000-1810). Those Standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Institute's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Institute's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. Sub-sections (3) and (4) of Section 13 of the Finance Act, No. 38 of 1971 give discretionary powers to the Auditor General to determine the scope and extent of the audit.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

1.4 Basis for Qualified Opinion

My opinion is qualified based on the matters described in paragraph 2.2 of this report.

2. Financial Statements

2.1 Qualified Opinion

In my opinion, except for the effects of the matters described in paragraph 2.2 of this report, the financial statements give a true and fair view of the financial position of the Industrial Technology Institute as at 31 December 2014 and its financial performance and cash flows for the year then ended in accordance with Sri Lanka Public Sector Accounting Standards.

2.2 Comments on Financial Statements

2.2.1 Non- compliance with the Sri Lanka Public Sector Accounting Standards

Even though only the fixed deposits existing for three months or less from the date of acquisition should be shown as cash and cash equivalents in terms of Sri Lanka Public Sector Accounting Standard 02, fixed deposits totaling Rs.110 million relating to a period of 6 months and one year had been shown under cash and cash equivalents.

2.2.2 Accounting Policies

According to Sri Lanka Public Sector Accounting Standard 07, the policy followed for the measurement of property, plant and equipment had not been disclosed.

2.2.3 Accounting Deficiencies

The following observations are made.

- (a) The Board of Directors had decided to repay a sum of Rs.13,279,398 to the European Union in the year under review to settle the loss sustained due to non-implementation of a project according to the agreement, commenced under financial aid of the European Union. However, provisions for the relevant expenditure had not been made in the accounts.

- (b) Even though the newly constructed administrative building at Malabe, belonging to the Institute had been completed by 22 June 2010 and handed over to the Institute, a sum of Rs.51,259,984 spent for that purpose had been brought to account as work-in-progress. As such, assets of the Institute had been understated by the same amount and depreciation had been understated by Rs.12,814,996.
- (c) Under-provisions of Rs. 2,113,792 for doubtful debts for the year under review had been made.
- (d) Government grants (up to the year 2002) and the Accumulated Fund had been indicated within the same note in the financial statements of the year under review.

2.2.4 Unexplained Differences

The following observations are made.

- (a) The cost of five items of property, plant and equipment according to the financial statements had been overstated by Rs.110,220,828 as compared with the cost shown in the physical verification reports and four items had been understated by Rs. 120,849,885.
- (b) The consumable goods stock shown under current assets in the statement of financial position for the year under review amounted to Rs.11,816,643 and according to the Physical Stock Verification Report, its value was Rs.11,505,499 thus indicating a difference of Rs.311,144.

- (c) Even though the payable Value Added Tax amounted to Rs.2,475,723, according to the Department of Inland Revenue, it was Rs.10,762,428. However, action had not been taken to identify this difference and settle it.

2.3 Accounts Receivable and Payable

The following observations are made.

- (a) Action had not been taken even during the year under review for the settlement of the dishonoured cheques and other debtor balances totalling Rs.2,771,234 included in the accounts over a number of years.
- (b) Provisions of Rs.7,030,873 had been made from the year 2009 as the salaries payable to the officers who had left the service and the officers remaining in service in terms of the Management Services Circular No. 30 of 22 September 2006 and a sum of Rs.6,980,352 out of that had not been paid even by 31 December 2014.

2.4 Transactions not Supported by Adequate Authority

Acting allowances of Rs.150,000 for posts for 10 officers and Divisional Head allowance Rs.396,000 for 09 officers had been paid in the year under review without obtaining the Treasury approval and contrary to provisions of the Establishments Code.

2.5 Non-compliance with Laws, Rules, Regulations and Management Decisions

The following instances of non-compliance were observed during the course of audit.

Reference to Laws, Rules, Regulations etc.	Non-compliance
(a) Section 11 of the Finance Act, No. 38 of 1971	A sum of Rs.270,226,000 had been invested without the approval of the Minister in charge of the subject.
(b) Section 114 of the Inland Revenue Act, No.10 of 2006	A salary less than the prescribed salary had been made use of to recover Pay As You Earn Tax from officers.
(c) Financial Regulation 571 of the Democratic Socialist Republic of Sri Lanka	Action in terms of Financial Regulations had not been taken in respect of a total of Rs.244,085 comprising bid deposits of Rs.83,339 and refundable deposits of Rs.160,746 which had lapsed for over two years.
(d) Ministry of Finance and Planning Circular No. MOFP/ERD/2011/1 of 21 April 2011.	A Canadian Project valued at Rs.38,469,075 and an Indo-Sri Lanka Project valued at Rs.49,999,319 had been commenced in April 2012 and September 2013 respectively without informing the Department of External Resources.



- (e) Section 7.4.5 of the Public Enterprises Circular No. PED/12 of 02 June 2003.

Even though a Board of Survey of 07 officers had been appointed for the survey of fixed assets in the year under review, computer accessories and software valued at Rs.13,581,898 and other assets valued at Rs.4,512,594 had not been verified.

- (f) Public Finance Circular No. 380 of 19 January 2000

 - (i) Section 01
Prior approval had not been obtained for consultancy services.
Even though 10 per cent to 25 per cent of the consultancy services income after deducting the direct costs, should be retained by the Institute and remitted once in 03 months to a Special Fund of the Treasury, it had not been so done.
 - (ii) Section 7.1

- (g) Letter No. DMS/ERST/21-4/ Vol II dated 11 February 2004 of the Director General of Management Services
Approval had been granted for the payment of salary of 02 months or Rs.20,000 per officer whichever is less as the incentive allowance. Even though the maximum incentive allowance that can be paid to 358 officers for the year under review amounted to Rs.7,160,000, overprovisions of Rs.1,060,000 had been made more than the approved amount.

- (h) National Procurement Agency Circular No.08 of 25 January 2006
5-6.1 (c)
Even though it was stated that when the goods or works are procured the trade name, catalogue number or the country of manufacture of goods or works should not be mentioned in the specifications contrary to it, instances of purchase mentioning the trade institution were observed.

3. Financial Review

3.1 Financial Results

According to the financial statements presented, the operations of the Institute for the year ended 31 December 2014 had resulted in a surplus of Rs.55,698,487 as compared with the corresponding surplus of Rs.39,177,699 for the preceding year thus indicating an improvement of Rs.16,520,788 in the financial result of the year under review. The increase in the income by 11 per cent in the year under review as compared with the preceding year had attributed to this increase.

4. Operating Review

4.1 Performance

The following observations are made in connection with the progress of projects operated by the Institute.

- (a) Even though the completed percentage of Project No.TG – 11/58 was 60 per cent, it had been shown as a project completed during the year.
- (b) The physical progress of two projects which should have been completed in the year under review had been 75 per cent and 63 per cent as at that date.

4.2 Management Inefficiencies

The following observations are made.

- (a) Even though it had been indicated that additional research should be carried out so as not to disturb the permanent duty for obtaining research allowances to be paid in terms of Section 06 (iii) of the Management Services Circular No.02/2014, research allowances amounting to Rs. 9,420,957 had been paid relating to the functions performed in respect of the researches of the Institute.

- (b) Six projects with a total budgeted value of Rs.28,714,000 based on the aid provided by the National Research Council had been implemented in the Institute during the year under review. Agreements had been entered into between the Chief Research Officer of each project and the National Research Council. Receipts of funds and operating of projects had been carried out by the respective Chief Research Officers without the intervention of the top management or accounting the transactions. The materials, labour and working capital of the Institute had been utilized for those projects and no financial or physical benefit whatsoever had been received to the Institute in that connection.
- (c) As the computer program system introduced to the Institute is a very complicated one, it was very difficult for accounting and auditing .
- (d) In providing credit card facilities for the payments of the client, a sum of Rs. 62,248 had been lost as a result of making payments by the Institute without recovering the commission charged by the bank from the client.
- (e) In obtaining royalty, the Institute had been deprived of receivable income due to obtaining royalty based on uncertified accounts and failure in taking action to obtain royalty from an Institute from which royalty should be obtained.
- (f) In making payments for the constructions of the Administrative building at Malabe, a sum of Rs. 4,547,590 and a sum of Rs. 8,384,036 had been overpaid deviating from the quantities and quality shown in the Bill of Quantities and in making the final payment respectively.

4.3 Personnel Administration

The following observations are made.

- (a) Seventeen officers exceeding the approved cadre had been given permanent appointments and 44 persons had been recruited on contract basis. Six officers had been recruited on contract basis without recruiting permanent officers for the vacant posts. It was observed that one female officer who had been so recruited, had not fulfilled even the minimum qualifications.



- (b) The post of Director General of the Institute had been vacant from 18 August 2014 to 30 April 2015, the date of audit and action had not been taken even in the year under review to fill 17 vacancies existed in the essential posts at Senior Level.

4.4 Idle and Underutilized Assets

The following observations are made.

- (a) Four Bank Current Account balances totalling Rs.1,820,645 had been in operation as dormant accounts over periods exceeding 05 years and action had not been taken even during the year under review for utilizing those funds for any other fruitful activity.
- (b) Even though nearly 05 years had lapsed after the completion of constructions of the Administrative building at Malabe by incurring an expenditure of Rs.51,259,984, it had been closed without utilizing for any administrative purpose whatsoever.

4.5 Uneconomic Transactions

The following observations are made.

- (a) Even though a sum of Rs.350,000 had been paid to a private institution for the introduction of a permanent costing method for fixing prices on technical and research services supplied by the Institute, pricing had been made as before without following the new method thus observing it as an uneconomic transaction.
- (b) As the laboratories of the Institute should be accredited to obtain international recognition through an institution which is internationally recognized, a sum of Rs. 4,426,671 had been overspent due to get that purpose carried out by two institutions.



5. Accountability and Good Governance

5.1 Action Plan

An Action Plan had been prepared for the year under review by the Institute. However, it had not been prepared including the implementing period and the expected output or results of those activities in terms of paragraph 04(c) of the Public Finance Circular No. PED/RED/01/04/2014/01 of 17 February 2014.

5.2 Budgetary Control

Variances between the budgeted and the actual income and expenditure ranging from 10 per cent to 263 per cent were observed, thus indicating that the Budget had not been made use of as an effective instrument of management control.

5.3 Unresolved Audit Paragraphs

A sum of Rs.7,810,032 recoverable from 18 officers who breached the conditions of the foreign scholarships agreements had not been recovered even by 30 April 2015, the date of audit in terms of Directive No.16 of the Committee on Public Enterprises held on 30 May 2011.



6. Systems and Controls

Deficiencies in systems and controls observed during the course of audit were brought to the notice of the Chairman from time to time. Special attention is needed in respect of the following areas of control.

- | | |
|--------------------------------|---|
| (a) Budgetary Control | Variiances between the budgeted and actual income and expenditure |
| (b) Fixed Assets Control | Non reconciliation of the value according to the physical verification report |
| (c) Accounting | Weaknesses in maintenance of control accounts, non-reconciliation of ledger accounts with the financial statements and omission of certain expenses from accounts relating to the year. |
| (d) Procurement | Not taking action according to the Guidelines. |
| (e) Human Resources Management | Existence of vacancies and overpayment of allowances. |

W.P.C.Wickramaratne
Acting Auditor General

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.2.	<p>Comments on Financial Statements</p>	
2.2.1.	<p>Non-compliance with the Sri Lanka Public Sector Accounting Standards</p> <p>Even though only the fixed deposits existing for three months or less from the date of acquisition should be shown as cash and cash equivalents in terms of Sri Lanka Public Sector Accounting Standard 02, fixed deposits totaling Rs. 110 million relating to a period of 6 months and one year had been shown under cash and cash equivalent.</p>	<p>Agreed. Noted to report in the proper manner in year 2015.</p>
2.2.2.	<p>Accounting Policies</p> <p>According to Sri Lanka Public Sector Accounting Standard 07, the policy followed for the measurement of property, plant and equipment had not been disclosed.</p>	<p>The requirement as per Sri Lanka Accounting Standards – 2006 was to revalue fixed assets in batches. Accordingly the categories of assets stated were revalued and accounted in year 2008. According to the Sri Lanka Public Sector Accounting Standards in force at present, action will be taken to revalue and account Motor Vehicles, Library Books and Computer Software within the next 3-5 years.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.2.3.	<p>Accounting Deficiencies</p> <p>The following observations are made.</p>	
(a)	<p>The Board of Directors had decided to repay a sum of Rs. 13,279,398 to the European Union in the year under review to settle the loss sustained due to non-implementation of a project according to the agreement, commenced under financial aid of the European Union. However, provisions for the relevant expenditure had not been made in the accounts.</p>	<p>Agreed. As action has not been taken to act according to the decision upto now, relevant provision will be made in next year.</p>
(b)	<p>Even though the newly constructed administrative building at Malabe, belonging to the Institute had been completed by 22, June 2010 and handed over to the Institute, a sum of Rs. 51,259,984 spent for that purpose had been brought to account as work-in-progress. As such, assets of the Institute had been understated by the same amount and depreciation had been understated by Rs. 12,814,996.</p>	<p>Action will be taken to reflect this in 2015 financial statements properly. Provisions for depreciation related to the current and previous year would be properly accounted in year 2015.</p>
(c)	<p>Under-provision of Rs. 2,113,792 for doubtful debts for the year under review had been made.</p>	<p>Action will be taken to rectify the error.</p>
(d)	<p>Government grants upto the year 2002) and the Accumulated Fund had been indicated within the same note in the financial statements of the year under review.</p>	<p>Government Grants and Accumulated Fund had been submitted as one entry from previous years (upto year 2002) and action will be taken to make necessary revisions by discussing with Government Audit Officers.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.2.4.	<p>Unexplained Differences</p> <p>The following observations are made.</p>	
(a)	<p>The cost of five items of property, plant and equipment according to the financial statements had been overstated by Rs. 110,220,828 as compared with the cost shown in the physical verification reports and four items had been understated by Rs. 120,849,885.</p>	<p>This variance has occurred due to the difficulty in reflecting the revalued figures in the Fixed Assets module of the Financial Software of ITI. At the discussions had with the service provider, it was confirmed that the relevant application methods could be established.</p>
(b)	<p>The consumable goods stock shown under current assets in the statement of financial position for the year under review amounted to Rs. 11,816,643 and according to the Physical Stock Verification Report, its value was Rs.11,505,499 thus indicating a difference of Rs. 311,144.</p>	<p>In the statement of financial position for year 2013 the consumable stock shown under current assets was Rs. 9,612,559 and the consumable stock as per physical verification report was Rs. 9,340,426. Accordingly, the approval of the Board of Management was granted to write-off the value of Rs. 272m,133 from the books of accounts and action will be taken to act accordingly. Action will be taken to request from the Board of Management to grant approval to write-off the balance Rs. 43,011.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.2.4. (c) Contd..	<p>Eventhough the payable Value Added Tax amounted to Rs. 2,475,723, according to the Department of Inland Revenue, it was Rs. 10,762,428. However, action had not been taken to identify this differences and settle it.</p>	<p>Discussions had been held with the Department of Inland Revenue for many years with regard to rectification of the tax issue and the matter has been referred to the Tax review Commission by now. Final decision has not been received.</p>
2.3.	<p><u>Accounts Receivable and Payable</u> The following observations are made.</p>	
(a)	<p>Action had not been taken even during the year under review for the settlement of the dishonoured cheques and other debtor balances totaling rs. 2,771,234 included in the accounts over a number of years.</p>	<p>Letters for confirmation of balances of dishonoured cheques and other debtor balances which were included in accounts from many years were sent to relevant parties in many occasions but no response were received from them. Therefore the approval of the Board of Management had been received to write off the balances from the books of accounts and action will be taken to write off on receiving the approval of the Ministry of Finance.</p>
(b)	<p>Provision of Rs. 7,030,873 had been made from the year 2009 as the salaries payable to the officers who had left the service and the officers remaining in service in terms of the Management Services Circular No. 30 of 22, September 2006 and a sum of Rs. 6,980,352 out of that had not been paid even by 31, December 2014.</p>	<p>A provision of Rs. 7,030,873 had been made from year 2009 to effect the salaries payable as per Management Services Circular No. 30 of 22, September 2006 to officers who had left the service and are in service.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.4.	<p><u>Transactions not Supported by Adequate Authority</u></p> <p>Acting allowances of Rs. 150,000 for posts for 10 officers and Divisional Head allowance of Rs. 396,000 for 09 officers had been paid in the year under review without obtaining the Treasury approval and contrary to provisions of the Establishment Code.</p>	<p>Payments have been made in year 2010, 2011, 2012 and 2013 from this provision. If there is any over provision in the balance shown, action will be taken to adjust in financial statements of the following year by discussing with the Human Resource Department.</p> <p>Agreed. As 05 officers are holding the responsibilities of a sectional head and are performing the administrative functions of the relevant section in addition to the duties of individuals, a monthly allowance of Rs. 2,000 was paid with the approval of the Board of Management. This allowance is less than the amount which could be payable as per the directives of the Establishment Code. The other officers were paid a monthly allowance at the rate of Rs. 500 as they performed the duties of another technician in addition to their normal duties. Action will be taken to obtain the approval of the General Treasury for the allowances paid for Heads.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.5.	<p><u>Non-compliance with Laws, Rules, Regulations and Management Decisions</u></p> <p>The following instances of non-compliance were observed during the course of audit.</p> <p>Reference to Laws, Rules, Regulations etc.,</p> <p>(a) Section 11 of the Finance Act, No. 38 of 1971</p> <p>A sum of Rs. 270,226,000 had been invested without the approval of the Minister in charge of the subject.</p> <p>(b) Section 114 of the Inland Revenue Act No. 10 of 2006</p> <p>A salary less than the prescribed salary had been made use of to recover Pay as You Earn Tax from officers.</p> <p>(c) Financial Regulation 571 of the Democratic Socialist Republic of Sri Lanka</p> <p>Action in terms of Financial Regulations had not been taken in respect of a total of Rs. 244,085 comprising bid deposits of Rs. 83,339 and refundable deposits of Rs. 160,746 which had lapsed for over two years.</p>	<p>These funds were invested as per the Sri Lanka accounting standards relevant to provision for Gratuity, for Deposits related to Letters of Credit relevant for foreign purchases with the approval of the line ministry and working capital needs as per Public Enterprises Circular No. 56.</p> <p>Agreed. This has been rectified in year 2015.</p> <p>Agreed. Action will be taken either to refund the deposits or to make necessary adjustments to the revenue after obtaining the confirmation of depositors and with the approval of the Board of Management</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.5 Contd...	<p>(d) Ministry of Finance and Planning Circular No. MOFP/ERD/2011/1 of 21, April 2011.</p> <p>A Canadian Project valued at Rs. 38,469,075 and an Indo-Sri Lanka Project valued at Rs. 49,999,319 had been commenced in April 2012 and September 2013 respectively without informing the Department of External Resources.</p>	<p>Agreed. First phase of Canadian Project has been completed by now, Department of External Resources has been informed on the second phase. Action will be taken to inform the Department of External Resources on the Indo-Sri Lanka Project in due course.</p>
(e)	<p>Section 7.4.5 of the Public Enterprises Circular No. PED/12 of 02, June 2003.</p> <p>Even though a Board of Survey of 07 officers had been appointed for the survey of fixed in the year under review, computer accessories and software valued at Rs. 13,581,898 and other assets valued at Rs. 4,512,594 had not been verified.</p>	<p>Agreed. Total cost of fixed assets of the Industrial Technology Institute is Rs. 447.4 million and as it was not possible to get an expert with such knowledge to verify the computer software valued at Rs. 13 million, it was unable to verify computer software. Further, as the total cost of other assets valued at Rs. 4,512,594 includes small items of which individual item value is Rs. 500 and 1,000 they were not verified. However, action will be taken to update the relevant register in future.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.5 Contd.....	(f)	
	<p>Public Finance Circular No. 380 of 19, January 2000.</p> <p>(i) Section 01 Prior approval had not been obtained for consultancy services.</p> <p>(ii) Section 7.1 Even though 10 per cent to 25 per cent of the consultancy services income after deducting the direct costs, should be retained by the Institute and remitted once in 03 months to a Special Fund of the Treasury, it had not been so done.</p>	<p>i. Considering the practical difficulties in obtaining prior approval for consultancy services. Considering the practical difficulties in obtaining prior approval for consultancy services.</p> <p>ii. Action will be taken in next year in this regard.</p>
(g)	<p>Letter No. DMS/ERST/21-4/Vol II dated 11, February 2004 of the Director General of Management Services.</p> <p>Approval had been granted for the payment of salary of two months or Rs. 20,000 per officer whichever is less as the incentive allowance. Even though the maximum incentive allowance that can be paid to 358 officers for the year under review amounted to Rs. 7,160,000, over provisions of Rs. 1,060,000 had been made more than the approved amount.4</p>	<p>Agreed. Relevant provision had to be made as it had to be paid this incentive for officers on contract basis at present, until the approval for the proposed Scheme of Recruitment is obtained.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
2.5 Contd..... (h)	National Procurement Agency Circular No. 08 of 25, January 2006 5-6-1(c) Even though it was stated that when the goods or works are procured the trade name, catalogue number or the country of manufacture of goods or works should not be mentioned in the specifications contrary to it, instances of purchase mentioning the trade institution were observed.	This status has occurred for chemicals as it is necessary to get chemicals with specific quality for research work.
3.	Financial Review	
3.1.	Financial Result According to the financial statements presented, the operations of the Institute for the year ended 31 December 2014 had resulted in a surplus of Rs. 55,698,487 as compared with the corresponding surplus of Rs. 39,177,699 for the preceding year thus indicating an improvement of Rs. 16,520,788 in the financial result of the year under review. The increase in the income by 11 per cent in the year under review as compared with the preceding year had attributed to this increase.	Noted.

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
<p>4.</p> <p>4.1.</p>	<p>Operating Review</p> <p>Performance</p> <p>The following observations are made in connection with the progress of projects operated by the Institute.</p> <p>(a) Even though the completed percentage of Project No. TG-11/58 was 60 per cent, it had been shown as a project completed during the year.</p> <p>(b) The physical progress of two projects which should have been completed in the year under review had been 75 per cent and 63 per cent as at that date.</p>	<p>Agreed, action will be taken to rectify the shortcomings in future projects.</p> <p>Agreed, due to internal external problems and practical constraints related to TG 11-61 and TG 13-62 projects, it was not been able to complete the projects at due dates. However, Project Performance Evaluating Committee has given necessary advice and guidance to expedite and complete the projects.</p>
<p>4.2</p>	<p>Management Inefficiencies</p> <p>The following observations are made.</p> <p>(a) Even though it had been indicated that additional research should be carried out so as not to disturb the permanent duty for obtaining research allowances to be paid in terms of Section 06 (iii) of the Management Services Circular No. 02/2014, research allowances amounting to Rs. 9,420,957 had been paid relating to the functions performed in respect of the researches of the Institute.</p>	<p>In addition to the research projects for which research allowances are being paid, officers are engaged in following duties as follows.</p> <p>Consultancy services, Contract projects, Customized services, Research related to Transfer of Technology, Training workshops etc.,.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
4.2 Contd.....	<p>(b) Six projects with a total budgeted value of Rs. 28,714,000 based on the aid provided by the National Research Council had been implemented in the Institute during the year under review. Agreements had been entered into between the Chief Research Officer of each project and the National Research Council. Receipts of funds and operating of projects had been carried out by the respective Chief Research Officers without the intervention of the top management or accounting the transactions. The materials, labour and working capital of the Institute had been utilized for those projects and no financial or physical benefit whatsoever had been received to the Institute in that connection.</p>	<p>Therefore, research allowances are paid for only Treasury Grant Projects and others externally funded projects performed by the officers.</p> <p>According to the policies of the National Research Council, Principal Investigator of individual Project of Industrial Technology Institute and National Research Council open up a joint account and make all transactions related to the project through the account. Hence the Industrial Technology Institute does not maintain a Ledger. Income and Expenditure report for all above projects are available with the Principal Investigator of each project. Principal Investigator and the National Research Council enter into an Agreement for each project and a copy of the Agreement could be obtained from Project Investigator of individual project for audit. The Industrial Technology Institute receives many benefits such as Plant Machinery and Equipment, Technologies, Research Publications, Royalty Income, Intellectual Property Rights, Post Graduate etc.,.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
4.2 Contd....	<p>(c) As the computer program system introduced to the Institute is a very complicated one, it was very difficult for accounting and auditing.</p> <p>(d) In providing credit card facilities for the payments of the client, a sum of Rs. 62,248 had been lost as a result of making payments by the Institute without recovering the commission charged by the bank from the client.</p> <p>(e) In obtaining royalty, the Institute had been deprived of receivable income due to obtaining royalty based on uncertified accounts and failure in taking action to obtain royalty from an Institute from which royalty should be obtained.</p> <p>(f) In making payments for the constructions of the Administrative building at Malabe, a sum of Rs. 4,547,590 and a sum of Rs. 8,384,036 had been overpaid deviating from the quantities and quality shown in the Bill of Quantities and in making the final payment respectively.</p>	<p>Agreed. As it is expected to purchase a new computer software system or to upgrade the existing system appropriately, it is anticipated to overcome the obstacle in future.</p> <p>As this amount is considered as 2.46% of the income, providing this kind of facilities is an encouragement of clients, this facility is being continued. Further, providing this facility has affected in increasing the customers of our Institute. However, it is expected to take steps in future in this regard by discussing with the General Treasury.</p> <p>Action has been taken to obtain royalty on the accounts certified by the Accountants of relevant Institutions. However, action will be taken to request for audited financial statements in future.</p> <p>Noted to take relevant action by investigating this matter.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
4.3.	<p><u>Personnel Administration</u></p> <p>The following observations are made.</p> <p>(a) Seventeen officers exceeding the approved cadre had been given permanent appointments and 44 persons had been recruited on contract basis. Six officers had been recruited on contract basis without recruiting permanent officers for the vacant posts. It was observed that one female officer who had been so recruited, had not fulfilled even the minimum qualifications.</p> <p>(b) The post of Director General of the Institute had been vacant from 18, August 2014 to 30, April 2015, the date of audit and action had not been taken even in the year under review to fill 17 vacancies existed in the essential posts at Senior Level.</p>	<p>The Board of Management has granted approval to recruit 10% of the permanent cadre on contract basis, until such time the permanent cadre is increased. Considering the approved cadre of AR – 1 and AR – 2, permanent employment has been awarded to 04 officers.</p> <p>Action will be taken to investigate with regard to the employee recruited on contract basis without fulfilling the minimum of required qualifications.</p> <p>New Director General has been appointed by now. As we are in the process of working to get the approval for the proposed scheme of recruitment and due to the delay of the same as the opportunities which could be extended for the internal applicants are being deprived, it is expected to do the recruitments as soon as the Scheme of Recruitment is approved.</p>

Comments on Auditor General's Report on the Financial Statements of Industrial Technology Institute for the year ended 31, December 2014 as per Section 14.2 (c) of the Finance Act No. 38 of 1971

Item Ref. of A.G's Report	Description/Comments of the Auditor General's Report	Comments of Industrial Technology Institute
4.4.	<p><u>Idle and Underutilized Assets</u></p> <p>The following observations are made.</p> <p>(a) Four Bank Current Account balances totaling Rs. 1,820,645 had been in operation as dormant accounts over periods exceeding 05 years and action had not been taken even during the year under review for utilizing those funds for any other fruitful activity.</p> <p>(b) Even though nearly 05 years had lapsed after the completion of constructions of the Administrative building at Malabe by incurring an expenditure of Rs. 51,259,984, it had been closed without utilizing for any administrative purpose whatsoever.</p>	<p>Account No. 000-0351-567 is related to CENTEC Project jointly maintained by the Industrial Technology Institute and few Industrialists of Ceramic Products. This project was not functioning for many years and now it is active. Hence the account is maintained.</p> <p>Account No. 000-2876-229 was used for coir product based Coir Project and this cash balance has to be refunded to Coconut Development Authority.</p> <p>Accounts bearing Nos. 000-9283-122 and 000-8174-439 are EEPEX Project accounts and this project has been suspended at present.</p> <p>Although the construction work of the Administrative Building has been completed, as construction work of other Laboratories related to the project has not been completed yet, it is our opinion that moving of the Administrative Sections alone to the Malabe Complex is not practical. However, necessary action is in progress to move to this building in year 2016.</p>

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4.5.	<p><u>Uneconomic Transactions</u></p> <p>The following observations are made.</p> <p>(a) Even though a sum of Rs. 350,000 had been paid to a private institution for the introduction of a permanent costing method for fixing prices on technical and research services supplied by the Institute, pricing had been made as before without following the new method thus observing it as an uneconomic transaction.</p> <p>(b) As the laboratories of the Institute should be accredited to obtain international recognition through an institution which is internationally recognized, a sum of Rs. 4,426,671 had been overspent due to get that purpose carried out by two institutions.</p>	<p>This costing method was introduced for standard services carried out by the Institute and staff from related sections were trained for this</p> <p>These accreditations are important, as International recognition for all countries are not the same and the accreditation is done on two methods of evaluation. By obtaining accreditation certificates from both Institutions there is a high recognition of our test reports thereby develop the trust and attraction of our customers.</p>
5. 5.1.	<p><u>Accountability and Good Governance</u></p> <p>Action Plan</p> <p>An Action Plan had been prepared for the year under review by the Institute. However, it had not been prepared including the implementing period and the expected output or results of those activities in terms of paragraph 04 (c) of the Public Finance Circular No. PED/RED/01/04/2014/01 of 17 February 2014.</p>	<p>Agreed. Action has been taken to act according to the circular in the current year and a correct Action Plan for 2015 has been submitted to the Line Ministry.</p>

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5.2.	<p>Budgetary Control</p> <p>Variance between the budgeted and the actual income and expenditure ranging from 10 per cent to 263 percent were observed, thus indicating that the Budget had not been made use of as an effective instrument of management tool.</p>	<p>Agreed. Budget will be made use of as an instrument of productive management tool in future.</p>
5.3.	<p>Unresolved Audit Paragraph</p> <p>A sum of Rs. 7,810,032 recoverable from 18 officers who breached the conditions of the foreign scholarships agreements had not been recovered even by 30 April 2015, the date of audit in terms of Directive No. 16 of the Committee on Public Enterprises held on 30 May 2011.</p>	<p>With regard to recovery of the sum of Rs. 4,020,392 from the officers who have breached the conditions of the Agreement, all steps taken have been failed. The reasons for the failure were these officers have left the country. Further the Sureties too have left the island and some are not alive. This matter was discussed at the meeting of the Committee on Public Enterprises held on 30.06.2011, and action has been taken to fill up general format No. 286 relevant to write-off of the amount from the books of accounts.</p> <p>With regard to the officer breached the Agreement to the value of Rs. 3,789,640, matter has been referred to the Attorney-General to obtain legal advice.</p>

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6.	<p>Systems and Controls</p> <p>Deficiencies in systems and controls observed during the course of audit were brought to the notice of the Chairman from time to time. Special attention is needed in respect of the following areas of control.</p> <p>(a) Budgetary Control Variance between the budgeted and actual income and expenditure</p> <p>(b) Fixed Assets Control Non recognition of the value according to the Physical Verification Report.</p> <p>(c) Accounting Weaknesses in maintenance of control accounts, non reconciliation of ledger accounts with the financial statements and omission of certain expenses from accounts relating to the year.</p> <p>(d) Procurement Not taking action according to the Guidelines.</p> <p>(e) Human Resources Management Existence of vacancies and overpayment of allowances.</p>	<p>Noted to improve the systems and controls</p>

Sgd. W.P.C. Wickramaratne
Acting Auditor General

Sgd. Prof. W. Abeywickrama
Chairman - ITI