



Ministry of Science Technology & Research

Industrial Technology Institute Colombo Sri Lanka



Driving the Nation through Technology

Industrial Technology Institute

Introduction

Industrial Technology Institute, formerly known as Ceylon Institute of Scientific & Industrial Research (CISIR) is a multidisciplinary R & D institute operating under Ministry of Science, Technology & Research.

Established in 1955 under the Parliament Act no 15 of 1955 (CISIR Act) in order to support the Industrial Development in the country.

Since 1998 the Institute is functioning under the Science & Technology Development Act No 11 of 1994.

The major objectives of the institute are multidisciplinary Scientific & Industrial research and technology transfer for rapid industrial development in the country



THE VISION, MISSION AND OBJECTIVES

Vision

To be a centre of excellence in Scientific 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

OBJECTIVES & FUNCTIONS

The objects and functions of the ITI as specified in the Science & Technology Act No. 11 of 1994 that came into effect on 01 April 1998 are 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

Functions shall be: - to support industry by-

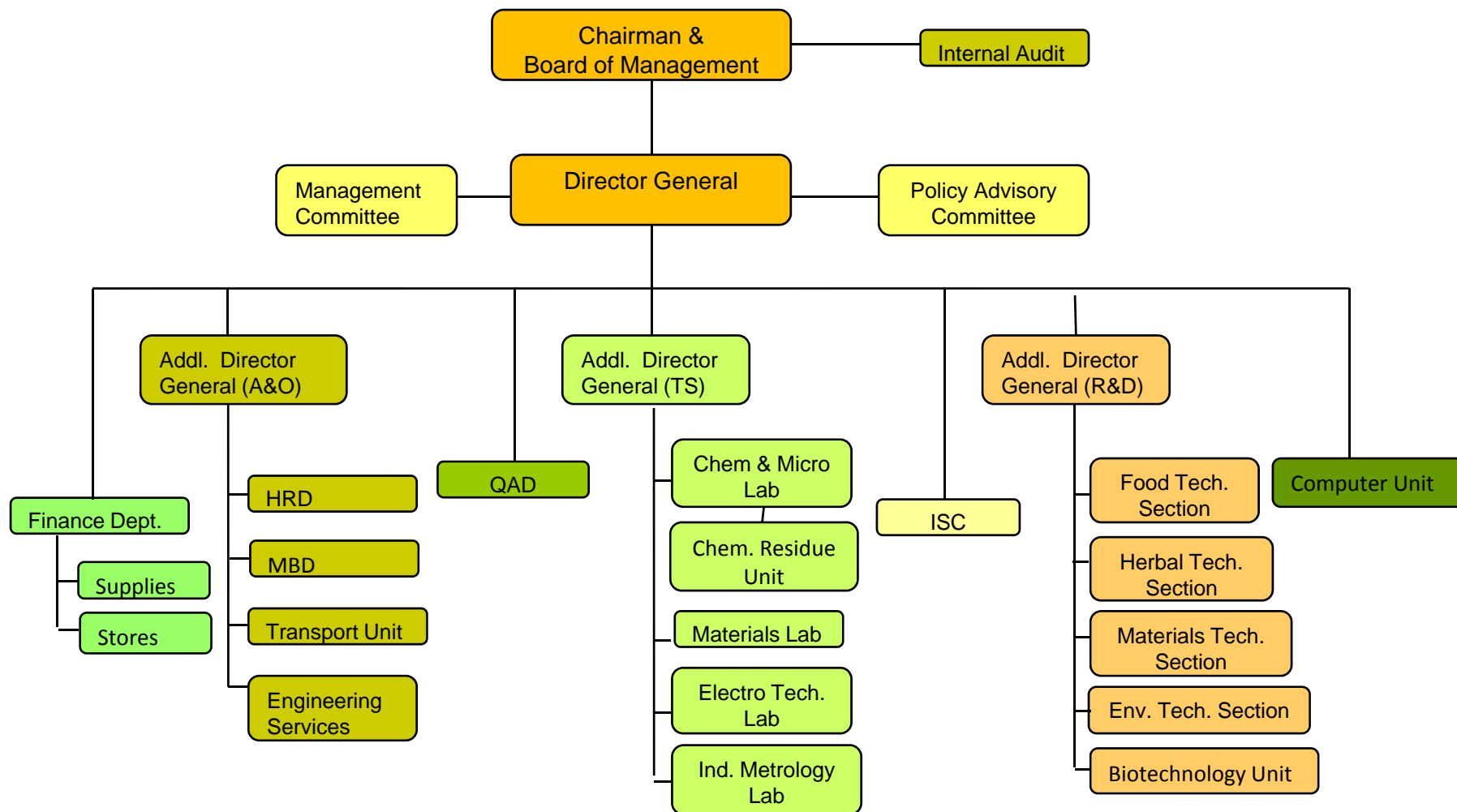
OBJECTIVES & FUNCTIONS

1. *Undertaking on contract, testing, investigation and research, for improving product quality, technical processes and methods used in industry, and for discovering new processes and methods to be used in industry;*
2. *Providing technical services and consultancies; and engaging in activities connected with technology transfers, the adaptation of technologies and the development of new technologies*
3. *To conduct research with a view to accelerating industrial technology development;*
4. *To collect, process and disseminate useful technical information, in particular on “shelf technology” with a view to accelerating industrial development;*

OBJECTIVES & FUNCTIONS

- 5. to undertake training of persons in areas related to the experience of the Technology Institute;*
- 6. to undertake or to collaborate in the survey and monitoring of environmental pollution and to recommend remedial measures to mitigate such pollution;*
- 7. to co-operate with government departments and institutions, universities, technical colleges and other bodies in demand driven research to promote industrial technology development*

Organizational structure



Category		Number	Educational Qualifications					
			PhD	Masters	PG Dip	BSc	Diploma	Other
Management		16	5	8				3
Research	Scientists	65	15	11		39		
	Engineers	14		1	1	11		1
Technical		102		2		42	22	
Administrative & Clerical		70						
Craftsmen		27						
Others		49						
Total		343	20	22	1	92	22	4

Annual Budget

Government Grant- Recurrent

Rs 230,000,000 (~ USD 1.65 Million)

Government Grant- Capital

Rs 102,753,000 (~ USD 735000)

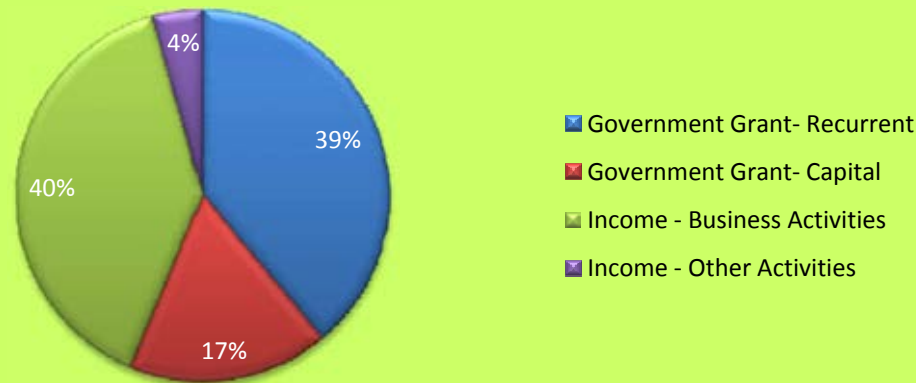
Income - Business Activities

Rs 232,992,325 (~ USD 1.67 Million)

Income - Other Activities

Rs 25,589,455 (~ USD 182000)

Operating Revenue (Rs. Mn)



Awards/Achievements

❖ **Gold Medal** at the 43rd International Inventors Exhibition and Competition in Geneva for the invention of “Safety coconut husk feeding mechanism to extract Bristol fibre from traditional fibre extraction processes”.



❖ **National Award for Science and Technology Achievements** – for Developing and commercialization of Omega 3 enriched chicken egg



❖ **Presidential Awards for Scientific Publications** –

Dr G A S Premakumara
Dr P N R J Amunugoda
Dr R M Dharmadasa
Mr Kosala Samarasekera





1st Time in
Sri Lanka

Arogya

Omega 3+

DHA

Eggs

I am not an Ordinary Egg!



Rs. 235/-
10 Eggs

PATENTED
PRODUCT



Technical Assistance :
Industrial Technology Institute (ITI)



Promoted by :
National Enterprise Development Authority (NEDA)



A Quality Product of:
AROGYA FARM (PVT) LTD.
Tel : 011-2932832

இலங்கையில்
முதற்தடவையாக

ஆரோக்யா

Omega 3+

DHA

முட்டைகள்

நான் சாதாரண முட்டையல்ல!



Rs. 235/-
10 Eggs

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தொழில் உதவி:
இலங்கை தொழில் நுட்ப நிறுவனம் (ITI)



தேசிய தொழில் முயற்சிகள்
அபிவிருத்தி அதிகார சபை (NEDA)



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இலங்கை யுரில் 1வது

ஆரோக்யா

Omega 3+

DHA

விந்நர்

உலக அளவிற்கு விந்நர் எனவே!



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Industrial Technology Institute

Awards/Achievements

❖ National Research Council (NRC) Merit Awards

Dr. Kanchana Abeyesekera - *Journal of Cereal Science*, **58**(3) : 451-456

C. H. Manoratne – *Journal of Experimental Nanoscience*, **8**(4): 1-18

❖ Sri Lanka Association for Advancement of Science (SLAAS) Postgraduate Research Award

Dr. Kanchana Abeyesekera



Research on traditional Sri Lankan rice varieties



Publications, Communications & Patents

❖ Publications – 23 scientific publications in referred journals



❖ Communications - over 85 International and Local Communications



2nd Biennial Research Symposium - 33



❖ Patents – 8 patent applications filed



Commercialization of Research

❖ Clay based technology to purify water

❖ Banana fibre paper

❖ Flavoured isotonic beverages

❖ Natural Methyl Eugenol based fruit fly trap



Methyl eugenol





Driving the Nation through Technology

Industrial Technology Institute

Technologies ready for Commercialization

- ❖ Glucose Syrup and High Protein Concentrates from Cassava
- ❖ Skin whitening and anti aging cream
- ❖ Technology for extension of storage life of mango
- ❖ Natural fruit fly bait
- ❖ Technology to identify pork and other meat
- ❖ Functional food products – yoghurts, bread, ready to serve beverage
- ❖ Fish soup cubes
- ❖ Tea based energy drink

Capacity building

Established a Chemical Residual Unit with a brand new LCMSMS & a ICPMS



The 18th Meeting of COMSATS Coordinating Council

Held on 12th -13th May 2015, in Hotel Galadari, Colombo. The Honourable Minister for Higher Education & Research, Dr. Sarath Amunugama graced the occasion as the Chief Guest and inaugurated the meeting.



International Symposium on Impacts of Extreme Atmospheric Events

The two-day International Symposium on 'Impacts of Extreme Atmospheric Events on Geo-Surface in a Changing Climate' was held on 14th - 15th May 2015, at Hotel Galadari, Colombo. The event was jointly organized by COMSATS and two of its Centres of Excellence, the Industrial Technology Institute (ITI), Sri Lanka, and the International Center for Climate and Environment Sciences (ICCES), China.



2nd Biennial Research Conference

The 2nd Biennial Research Symposium was held on 16th November 2015 at the BMICH, Colombo under the theme “Science, Technology and Innovations for a knowledge based Economy”. The Honourable Minister of Science, Technology and Research, Mr Susil Premajayantha graced the occasion as the Chief Guest.



New Programmes

- ❖ Establishment of the Human Cell Culture Facility at ITI
- ❖ Trace solvent analysis of herbal extracts
- ❖ Establishment of new bioassays for *in vitro* screening of anti-lipidemic activities, anti- wrinkling and skin whitening activities
- ❖ Joint China – Sri Lanka Biotechnology Laboratory
- ❖ Joint China – Asia Technology Transfer Centre
- ❖ Pharmaceutical Testing Laboratory
- ❖ Petrochemical Testing Laboratory
- ❖ School of Science & Technology

International Collaborations

Establishment of a Climate Change Research Centre at ITI

A Memorandum of Understanding (MoU) was signed between ITI and International Center for Climate and Environment Sciences (ICCES), China ICCES, for the establishment of a Climate Change Research Centre - *One of the ITI staff members has got PhD opportunity and is following his PhD programme at ICCES, China.*

Enhance preservation of fruits in South Asia

The second phase of the CIFSRF-IDRC, Canada aided project, aiming commercialization of the products and services developed by the phase one, “Hexanal Smart Delivery System”, “Enhanced Freshness Formula” and technology on banana fibre paper was initiated during the year.

Novel cereal and fruit based probiotics

The Indo-Sri Lanka joint research programme with ICRISAT, India on Ensuring human health, food and nutrition security through novel cereal and fruit base probiotics continued with studying properties of 3 varieties of finger millet.

International Collaborations

Investigation of Sri Lankan Marine algae

A project on “Investigation of biologically active natural products from selected marine algae found in Sri Lanka”, was initiated with collaboration of Korean Institute of Ocean Science and Technology.

GIZ – SME Development Project

ITI continued to assist the SMEs in the North, East and Uva Provinces through the GIZ – ITI Joint Project on Technology Transfer to SMEs

Future Plans

Participation in COMSATS programmes

S & T cooperation offers to other network members and COMSATS member countries

Joint research work

Herbal Technology : Value addition to Natural Products

Food Technology : Health food, Nutraceuticals, Natural Food additives, Post harvest technologies

Material Technology : Value addition to minerals ; Natural Fibers

Training facilities : Metrology; ISO 17025; Herbal cosmetics

Technology transfers: A range of Herbal, Food & Material based technologies for MSMEs

A big thank for your patience.....

KASPER Technology



Functional natural beverages and sweeteners



Kithul tree



Remove all bracts



Expose to sun light for 3-7 days



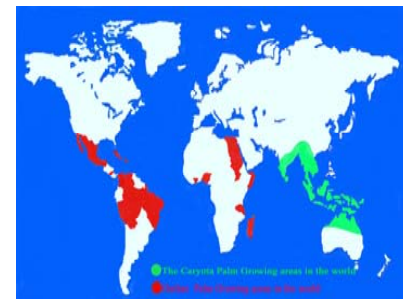
Cut a hole at upper side of the stem & treat



Tie-up the spikes.

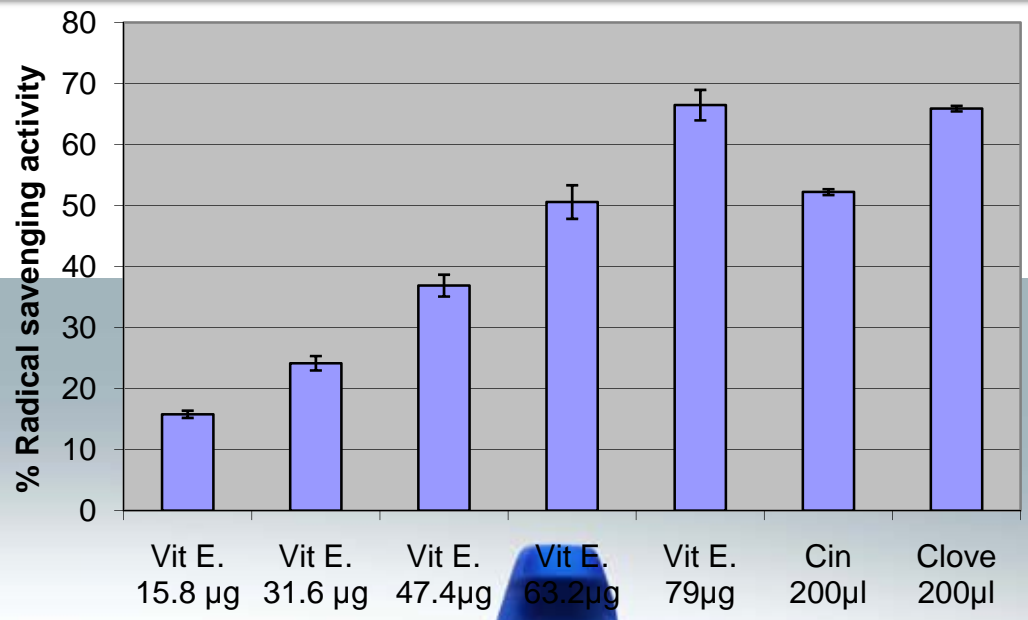


Cut the edge after
1-2 days to start sap flow.





Functional water from spices





Bacillus thuringiensis israelensis



- Indigenous strain of bacterium, *Bacillus thuringiensis israelensis*.
- Proven technology and a viable option for mosquito control in Sri Lanka especially dengue control, filariasis, malaria, JE.
- Green technology – environmentally benign, a viable alternative for synthetics.
- Successfully commercialized to use in Sri Lanka.
- Novel venture in biotechnology-based industries in Sri Lanka
- Value addition to local R&D outputs by local Scientists



Electro Technology Unit

Audio signal based street lamp
controller



Automatic weather
station



Timer based street lamp
controller

A big thank for your patience.....