

**වාර්ෂික වාර්තාව**  
**வருடாந்த அறிக்கை**  
**Annual Report**

**2013**



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**இலங்கைத் தேசிய பொறியியல் ஆராய்ச்சி அபிவிருத்தி நிலையம்**  
**NATIONAL ENGINEERING RESEARCH & DEVELOPMENT CENTRE OF SRI LANKA**

**තාක්ෂණ හා පර්යේෂණ අමාත්‍යාංශය**  
**தொழில்நுட்பவியல் ஆராய்ச்சி அமைச்சு**  
**Ministry of Technology & Research**

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## 01. Acts, Legislation & Corporate Governance

National Engineering Research And Development Centre of Sri Lanka (NERDC) was established in 1974 in accordance with the provisions of the State Industrial Corporations Act No. 49 of 1957 and now it is functioning under the purview of the Ministry of Technology and Research. NERDC is one of the premier Institute established under the aforesaid Act with the primary objective of promoting and facilitating the Development of Domestic Engineering and Technological Research Industry. The Centre is instituted at Industrial Estate, Ekala, Ja-Ela.

### V I S I O N

*"To be a Centre of Excellence, in Engineering Research and Development Centre in the S E Asia and to be able to make substantial contributions towards the sustainable economic and social development of the people of Sri Lanka through engineering interventions."*

### M I S S I O N

*"To develop, acquire, adapt & transfer engineering technologies that would help in the production and sustainable utilization of human and material resources by engaging in R&D activities that would have a direct impact on the economic development of Sri Lanka and on the improvement of the living standard of the people."*

### Objectives

- To provide for an institutional mechanism needed for the progressive development of indigenous technology by encouraging, recognizing and developing innovative and creative talent in Sri Lanka.
- To provide facilities to co-ordinate the technological, engineering and research capabilities of various public and private sector industries and institutions in a productive manner through co-operative endeavour.
- To ensure by adoption and adaptation the choice of technologies that would be consistent with the country's resource endowments and national planning objectives.
- To examine direct and indirect mechanism of technology transfer and offer counsel to appropriate government and private institutions in Sri Lanka, when required to do so.
- To promote the optimal exploitation of the country's human and material resources, particularly labor and raw material resources by promoting the growth of suitable technology.
- To design, manufacture, and test prototype machinery, pilot plants as demanded by Industrial, commercial and other end users in an economical manner.
- To provide for continuous monitoring of technological data and documentation relating to engineering designs and research through the co-operation of international and national agencies.
- To offer sustained consultancy services to public and private sector enterprise and undertake research and promote training activities to broaden the base of the country's engineering and industrial design and research capabilities.
- To make provision for purpose connected with engineering, research and development related to matters aforesaid.

## 02. Board of Directors and Organization Structure

Name	Position	Workplace	Qualifications
Eng. D R Pullaperuma	Chairman Up to 14 <sup>th</sup> July 2013	NERD Centre of Sri Lanka 2P/17B, Industrial Estate, Ekala, Ja-Ela	BSc Eng, CEng, FIE (SL) FIET, MBA (Utility Management) Ireland
Eng. D A S Wijayapala	Chairman From 15 <sup>th</sup> July 2013	NERD Centre of Sri Lanka 2P/17B, Industrial Estate	BSc EngHons, M Eng, P Eng, FIE(SL), C Eng
Eng. Parakrama Jayasinghe	Member	Director Geotech (Pvt.) Ltd. 13/1, Pepiliyana, Mawatha, Kohuwala, Nugegoda	BSc EngHons, University of Peradeniya, FRMIT (Australia), FIE (SL) C Eng, P E
Dr. Rohan Munasinghe	Member	Director/Snr. Lecturer Intellegent Machines Laboratory, University of Moratuwa	PhD (Saga), C Eng, MIEFE
Dr. A M Mubarak	Member Up to 14 <sup>th</sup> July 2013	Director/CEO Industrial Technology Institute No.363, Baudhaloka Mawatha Colombo 07	BSc (Chemistry) Hons, PhD (Cantab), Fellow of Institute of Chemistry, Fellow of National Academy of Sciences
Mr. G S J Dissanayake	Member Up to 14 <sup>th</sup> July 2013	Presidential, Coordinator, Director Presidential Secretariat Office, Colombo.	GCGI (UK)
Mr. H A D U G Gunasekara	Member Up to 14 <sup>th</sup> July 2013	Director/Managing Director Union Chemicals Lanka Plc, 4 <sup>th</sup> Floor, Sarathi Building, No.50, Hide Park, Corner, Colombo 02	MBA, LLM, LLB, FIIE(Sc), FMS(UK), Dip on Polymer Technology, Attorney-at-law
Mr. Asanga Dayaratne	Member Up to 14 <sup>th</sup> July 2013	Additional Director General Dept. of Management Services Ministry of Finance Planning General Treasury, Colombo 01	MA (Economics) South Korea, BA Hons
Dr. M W Jayaweera	Member From 15 <sup>th</sup> July 2013	Senior Lecturer – University of Moratuwa	BSc EngHons, PhD (Saitama)
Dr. J A Gayan Chamantha	Member From 15 <sup>th</sup> July 2013	Doctor Wijayakumarathunga Hospital, Seeduwa	MBBS
Eng. K H J Mangala	Member From 15 <sup>th</sup> July 2013	Lecturer, Dept. of Mechanical Engineering, University of Moratuwa	BSc EngHons
Ms. K V C Dilrukshi	Member From 30 <sup>th</sup> July 2013	Assistant Director Dept. of Public Enterprises	BSc (Accountancy Sp.), Associate Member of the Institute of Chartered Accountant of Sri Lanka

**OFFICE ADDRESS**

2P/17 B, Industrial Estate  
Ekala  
Ja-Ela

Postal Code : 11380

**CONTACT INFORMATION**

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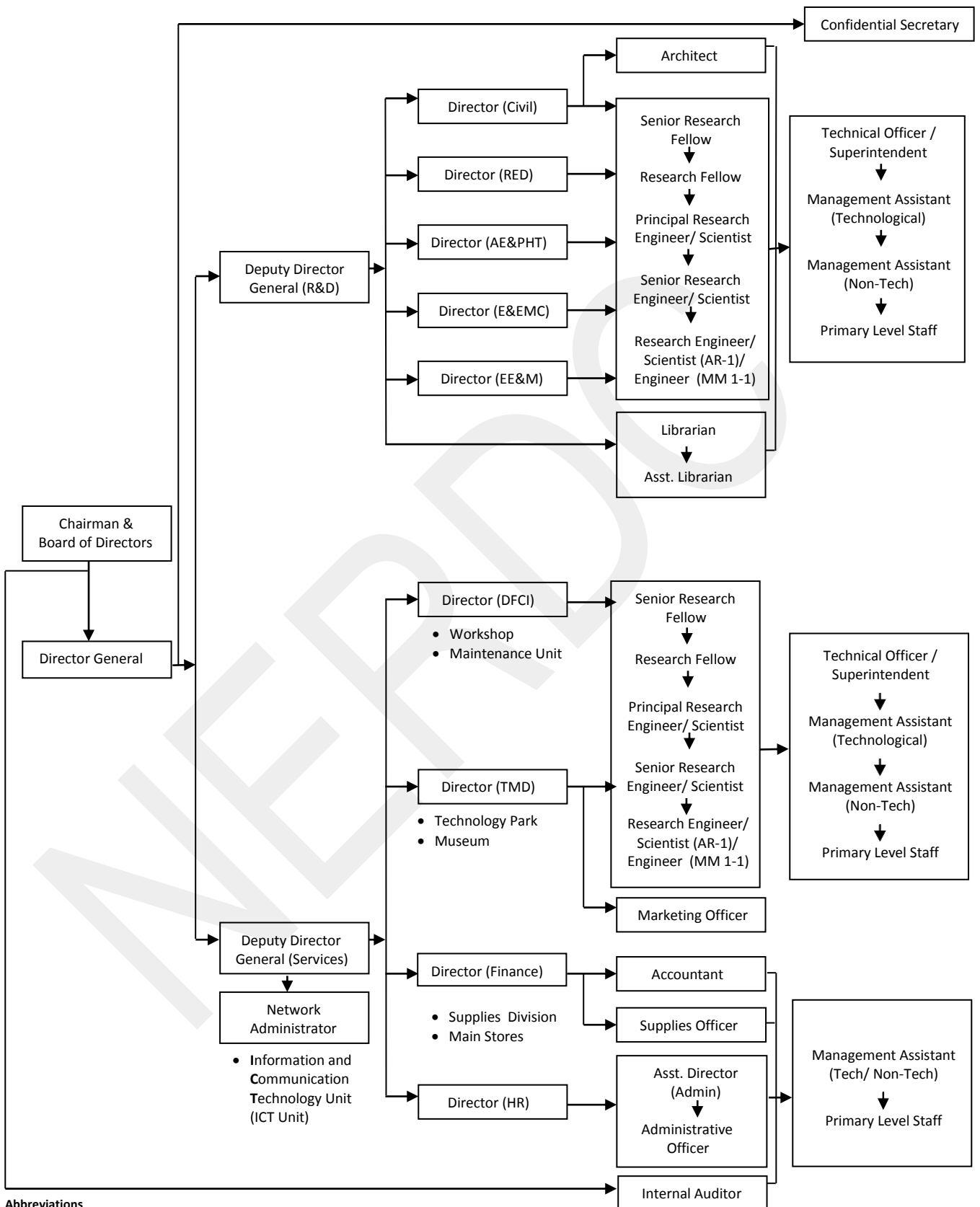
**BANKERS**

Bank of Ceylon, Ja-Ela  
Bank of Ceylon, Corporate Branch  
People's Bank, Ja-Ela

**AUDITOR**

Auditor General

## National Engineering Research and Development Centre of Sri Lanka Organization Structure



**Abbreviations**

- R&D - Research & Development
- RED - Renewable Energy Department
- A&PHT - Agriculture Engineering & Post Harvest Technology Department
- E&EMC - Energy & Environmental Management Centre
- EE&M - Electrical, Electronics & Mechatronics Department
- DF&CI - Design Fabrication & Consultancy for Industries
- TMD - Techno Marketing Department
- HR - Human Resources

### 03. Top Management and Executive Staff

#### CHAIRMAN

EngRanjithPullaperuma- MBA (Utility Management-Ireland), BSc Eng, C Eng, FIET(SL)-Up to 14<sup>th</sup> July 2013

Eng. D A S Wijayapala - BSc EngHons, MEng, PEng, FIE(SL), CEng - From 15<sup>th</sup> July 2013

#### DIRECTOR GENERAL

Eng D DA Namal – M Eng (Energy Technology), BSc EngHons, C Eng, MIE(SL)

#### DEPUTY DIRECTOR GENERAL (RESEARCH & DEVELOPMENT)

Eng G K K A De Silva - MSc (Building Technology), BSc EngHons, C Eng, MIE (SL)

#### DEPUTY DIRECTOR GENERAL (SERVICES)

Mr. A H Piyasiri – MSc (Management of Technology), BSc EngHons

#### EXECUTIVE STAFF IN DEPARTMENT WISE

#### Energy & Environmental Management Centre (E&EMC)

##### Head, Energy & Environmental Management

Mr J A A D Jayasuriya M Eng, BSc Eng up to 30/09/2013

##### Research Fellow

Eng K T Jayasinghe M Eng, BSc Eng from 03/06/2013

*(Acting Administrative HoD from 01/10/2013)*

##### Principal Research Engineer

Eng K T Jayasinghe M Eng, BSc Eng up to 02/06/2013

##### Senior Research Scientist

Mrs P M G Pathiraja MSc (Environmental S&T), BSc Special

##### Research Engineers

Ms N P T Perera MSc, BSc Eng

Mr M D Sahardeen BSc Eng

Mr. R Tushyanthan NDT, AM IMech E (UK), AMIE (SL)  
from 01/04/2013

Ms. WWWeeraseskera BSc EngHons from 17/06/2013

Mr. U L D Maduranga BSc EngHons From 25/11/2013

Mr. G U A C Pradeep BSc Hons From 03/06/2013 Up to 02/08/2013

Ms. H D N B Premachandra BSc Eng From 03/06/2013 Up to 01/09/2013

#### Civil Engineering Department

##### Director (Technical) Civil Engineering

Eng (Mrs) J A C Chrishanthi BSc Eng, C Eng, MIE(SL)

##### Principal Research Engineers

Eng W P R D Weerasinghe NDT, CEI Part I, IESL Part I

Eng W W P K Perera BSc EngHons, M Eng (Struct), C Eng  
MIE (SL)

##### Research Engineer

Mr. K P D DJayasekera BSc Eng From 25/11/2013

##### Engineers (from 03/06/2013)

Mrs. K S W Weerasinghe Special Apprentice (Civil Eng.), IESL (Part I)

Mrs. D M A K Digala NDES (Civil Eng), CEI (UK) Part I

##### Architecture

Mr. C A U Dalpathado BSc (BE) Hons, MSc(Arch), AIA (SL),  
Chartered Architect Up to 28/03/2013

**Renewable Energy  
Department  
(RED)**

**Director (Technical) Renewable Energy**

Eng N K Edirisinghe BSc Eng

Mr J A A D Jayasuriya M Eng, BSc Eng  
(Actg. Administrative HoD from 01.10.2013)

**Research Fellow**

Eng W K R Peiris MPhil, MA (Buddhist Stud), BSc Eng  
Eng, C Eng, MIE (SL)

**Principal Research Engineers**

Mr D M Punchibanda BSc Eng

**Research Engineers**

Ms N P Kumarasinghe BSc Eng Up to 03/08/2013  
Ms. K A D M Apekshini BSc Eng From 06/03/2013 up to 01/09/2013  
Mr. N W W V SahanPathum BSc Eng, MIE (SL) from 03/06/2013  
Mr. E B U C Kumara BSc Eng (Hons) from 25/11/2013  
Mr. G W K P Gabadage MBA, PG Dip., BSc Eng from 03/06/2013  
up to 12/06/2013

**Agriculture  
Engineering  
&  
Post Harvest  
Technology  
Department  
(AE & PHT)**

**Director (Technical) Agriculture & Post Harvest Technology**

Eng K Y H D Shantha BSc Eng, MSc Eng.

**Principal Research Engineer**

Mrs Y M M K Ranathunga NDT

**Research Engineers**

Ms K U C Perera BSc Eng Up to 17/05/2013  
Mrs P M Y S Pathiraja BSc Eng  
Mr S A P Shalinda Silva BSc Eng  
Ms. M A N Sugandi B Tech Degree, MIE (SL) from 10/07/2013  
Mr. Y S J Kumaranayake BSc Eng from 25/11/2013

**Engineers**

Mr. P A U W K Paranagampola National Diploma in Engineering Science  
from 03/06/2013

**Electrical,  
Electronics &  
Mechatronic  
Department  
(E/E & M)**

**Head Electrical, Electronics & Mechatronic**

Eng (Mrs) N G D Edirisinghe MEng, C Eng, MIE (SL)

**Senior Research Engineer**

Mr. S Vidyaratne BSc Eng, MSc, AM IESL, AM IET  
from 10/06/2013

**Research Engineers**

Mr H P H Kumara MSc Eng, EC(UK) PART I & II  
Mr S M Handagala BSc Eng  
Ms H M C N Herath BSc Eng Hons, MIE (SL) from 17/06/2013  
Ms. D R S K Wimalaratne B Tech Hons, MIE (SL) from 03/06/2013

**Engineers**

Mrs. H D C Hettiarachchi NDT from 03/06/2013  
Mr. H S Jayawickrama BSc Eng from 03/06/2013

<p><b>Design Fabrication &amp; Consultancy for Industry Department (DF &amp; CI)</b></p>	<p><b>Director (Technical) Design Fabrication &amp; Consultancy to Industry</b> Mr AA S P Jayasinghe                      BSc Eng(Hons)</p> <p><b>Principal Research Engineers</b> Eng H M L U Herath                      BSc Eng Eng A R C Salgado                      BSc Eng Eng S P Perera                              EC (UK) Part I &amp; II, NDT</p> <p><b>Network Administrator</b> Mr. I MKatugampola                      B EngFrom 03/06/2013 up to 26/08/2013</p> <p><b>Engineers</b> Mr. N A D D A Prasanne                      NDT    from 03/06/2013</p> <p><b>Superintendent – Maintenance</b> Mr. W H S Ramal Silva                      NDES</p>
<p><b>Techno Marketing Department (TMD)</b></p>	<p><b>Director (Technical)</b> Eng. M A M Fernando                      PGDip (Energy) IESL Part I &amp; II, CEng, MIE (SL)</p> <p><b>Principal Research Engineer</b> Mr. D V Wimalasena                      NDT, Dip in Marketing(SL)</p> <p><b>Marketing Officer</b> Mr. S Wijesooriya                              Master of Business Studies (MBS) BSc (Agriculture) Special</p>
<p><b>Technology Park</b></p>	<p><b>Superintendent - Technology Park</b> Mr. A A N S Adikari                      BSc</p>
<p><b>Museum</b></p>	<p><b>Superintendent – Museum</b> Mrs. B D P S Ranaweera                      BSc (Special)                              from 19/08/2013</p>
<p><b>Human Resources Department</b></p>	<p><b>Director (Human Resources)</b> Mrs. J.P.A.D.S.I. Jayasekera                      MPM, B.Sc, Dip in Personnel Mgmt, Dip. in Advanced English</p> <p><b>Assistant Director (Administration)</b> Mr. K.G.N. Ratnayake                      B.Com (Special), NationalDip inHRM Up to 30/11/2013</p>
<p><b>Finance Department</b></p>	<p><b>Finance Manager</b> Mrs D V S Perera                              ICMA Professional Part II, IPFA, ICEA</p> <p><b>Accountant</b> Mr. J M R S Jayasinghe                      BSc (Bus Adm) Special ICASL Professional Part I</p>
<p><b>Library</b></p>	<p><b>Librarian</b> Mrs D M T P K Dewagiri                      MSSc, B.A(Special) Library Science ASLLA</p>
<p><b>Supplies Department</b></p>	<p><b>Supplies Officer</b> Mr. R.H.A. Jeewananda                      BSc (Physical Science)</p>

**Total Staff as at 31.12.2013**

Top Management	-	03
Engineers/Scientist	-	42
Other Executives	-	08
Junior Managers	-	08
Management Assistants (Technological)	-	14
Management Assistants ( Non – Technological)	-	49
Primary Level Staff ( PL1& PL3 )	-	<u>153</u>
<b>Total Staff</b>	-	<b><u>277</u></b>

## 04. Human Resources

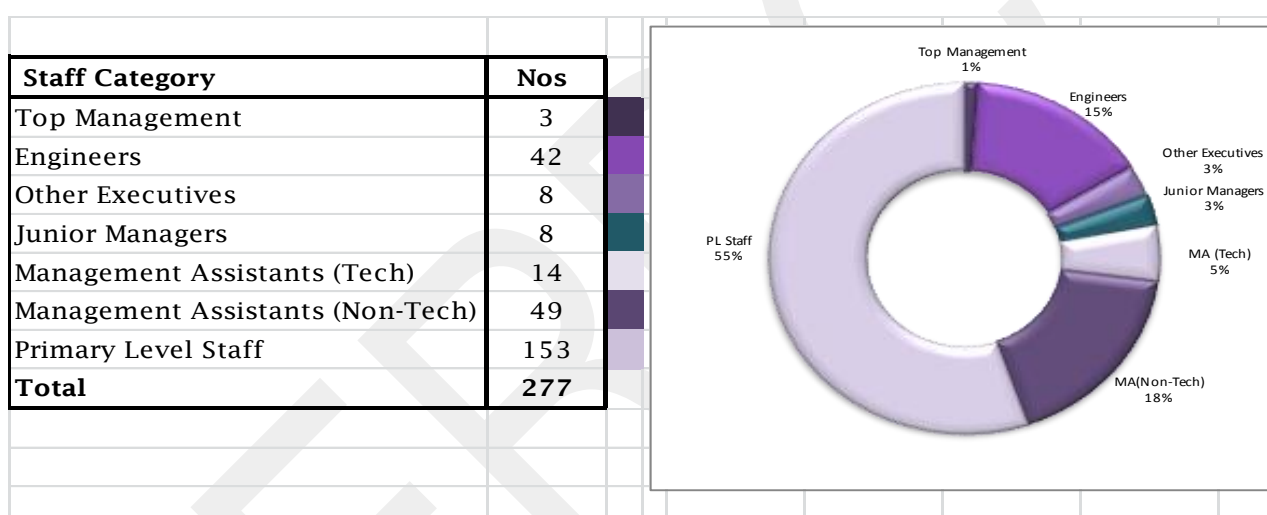


Human Resources (HR) is the most effective tool and life blood of any organization because of its liveliness and its essentiality. In other words without the Human Resource, the other resources cannot be effectively utilized or managed in an organization.

The permanent HR cadre of the Centre constitutes 277 employees and this includes Engineers numbering 45 comprising the Top Management, Other Executives being 08, Junior Managers 08, Management Assistant (Technological) 14, Management Assistants (Non-Technological) 49, PL Staff, the majority being 153.

The summary information on permanent cadre of the Centre is as follows;

### Summary Information on Staff Strength



Following new recruitments had been made internally/externally at the Centre during the year 2013.

Name	Designation	Department	Date of Recruitment
01 Miss B A I K Abeywardana	Technical Assistant	AE&PHT	02/01/2013
02 Mr.HHGHemathilake	Tool Keeper	DF&CI	01/02/2013
03 Mr. R Thushiyandan	Research Engineer	E&EMC	01/04/2013
04 Mr. K T Jayasinghe	Research Fellow	E&EMC	03/06/2013
05 Mr. W A L S Karunawardane.	Engineer	RED	03/06/2013
06 Mrs. H D C Hettiarachchi	Engineer	EE&M	03/06/2013
07 Mrs. D M A K Digala	Engineer	Civil	03/06/2013
08 Mrs. K S W Weerasinghe	Engineer	Civil	03/06/2013
09 Mr. N A D D J Prasanna	Engineer	AE&PHT	03/06/2013
10 Mr. G W K P Gabadage	Senior Research Engineer	RED	03/06/2013
11 Ms. K A D M Apekshini	Research Engineer	RED	03/06/2013
12 Ms. H D N B Premachandra	Research Engineer	E&EMC	03/06/2013
13 Ms. D R S K Wimalaratne	Research Engineer	EE&M	03/06/2013
14 Mr. P A U W K Paranagampola	Engineer	AE&PHT	03/06/2013
15 Mr. N W W V S Pathum	Research Engineer	RED	03/06/2013
16 Mr. I M Katugampala	Network Administrator	DF&CI	03/06/2013

	Name	Designation	Department	Date of Recruitment
17	Mr. E B S T Senadeera	Trainee Management Assistant (Testing) <i>(on Contract basis)</i>	E&EMC	03/06/2013
18	Ms. E A S Priyanwada	Trainee Management Assistant (Testing) <i>(on Contract basis)</i>	E&EMC	03/06/2013
19	Ms. A H Wickramathilake	Trainee Management Assistant (Testing) <i>(on Contract basis)</i>	E&EMC	03/06/2013
20	Ms. S A D N P K Suraweera	Trainee Management Assistant (Testing) <i>(on Contract basis)</i>	EE&M	03/06/2013
21	Mr. G V A C Pradeep	Research Engineer	E&EMC	03/06/2013
22	Mr. S Vidyaratne	Senior Research Engineer	EE&M	10/06/2013
23	Mrs. B A P H Manorima	Architect	Civil	10/06/2013
24	Ms. H M C N Herath	Research Engineer	EE&M	17/06/2013
25	Ms. W M W Weerasekera	Research Engineer	E&EMC	17/06/2013
26	Mr. H M A I Bandara	Draught Person	Civil	25/06/2013
27	Ms. M A N Sugandhi	Research Engineer	AE&PHT	10/07/2013
28	Ms. B D P S Ranaweera	Superintendent (Museum)	Museum	19/08/2013
29	Mr. B U C K Enderaarachchi	Research Engineer	RED	25/11/2013
30	Mr. K P D DJayasekera	Research Engineer	Civil	25/11/2013
31	Mr. U L D Maduranga	Research Engineer	E&EMC	25/11/2013
32	Mr. Y S J Kumararanayake	Research Engineer	AE&PHT	25/11/2013
33	Mr. A M G D Abeyasinghe	Technical Assistant (on contract basis)	RED	02/12/2013
34	Mr. W P R S Senarathne	Technical Assistant	AE&PHT	02/12/2013
35	Ms. T Gajenthini	Management Assistant	T.Park	02/12/2013
36	Ms. I S Galabada	Technical Assistant	E&EMC	11/12/2013

Following Staff Members had retired from the Centre during the year 2013

	Name	Designation	Department	Date of Retirement
01	Mr. H P Ranasinghe	Welder/Fitter	AE&PHT	16/04/2013
02	Mrs. L S I Silva	Draughtsman	Civil	31/07/2013
03	Mr. H A J Fernando	Electrician	EE&M	25/09/2013
04	Mr. K N E Silva	Carpenter	Civil	30/11/2013

Following Staff Members had resigned from the Centre in the year 2013.

No	Name	Designation	Department	Resigned Date
1	Mr. C A U Dalpathadu	Architect	Civil Engineering	28/03/2013
2	Miss. K U C Perera	Research Engineer	AE&PHT	17/05/2013
5	Mrs. N P Kumarasinghe	Research Engineer	RED	03/08/2013
6	Mr. G V A C Pradeep	Research Engineer	E&EMC	02/08/2013
7	Mr. I M Katugampala	Network Administrator	DF&CU	26/08/2013
8	Miss B R Premarathne	Technical Assistant	AE&PHT	30/08/2013
9	Ms. H D N B Premachandra	Research Engineer	E&EMC	01/09/2013
10	Ms. K A D M Apekshini	Research Engineer	RED	01/09/2013
11	Mr. H M A I Bandara	Draught Person	Civil Engineering	12/09/2013
14	Mr. D W A M Amaradasa	Driver	HR-Transport	01/10/2013
15	Miss. D P Edirisinghe	Technical Assistant	Civil Engineering	22/10/2013
16	Mrs. N ThiliniRajapaksha	Technical Assistant	AE&PHT	02/11/2013
17	Miss B A I K Abeywardana	Technical Assistant	E&EMC	02/11/2013
19	Mr. K G N Rathnayake	Asst. Director (Administration)	HR	01/12/2013

## 5.1 Capacity Building/ Skill Development Programmes

### 5.1.1 In-house Training Programmes

#### First Aid Program

One day In-house training program on “Preliminary First Aid for Employees” was conducted with the Assistance of Sri Lanka Red Cross Society at the Techno Marketing Department (TMD) Auditorium of the Centre on 31.07.2013. Twenty five numbers of selected group of employees had participated representing all Departments of the Centre. Training program consisted with both theoretical and practical sessions giving an opportunity for the participant to gain knowledge and skills to react in an accident/incident where the First Aid is needed until the casualties are taken into the hospital nearby.

#### Employee Educational Program

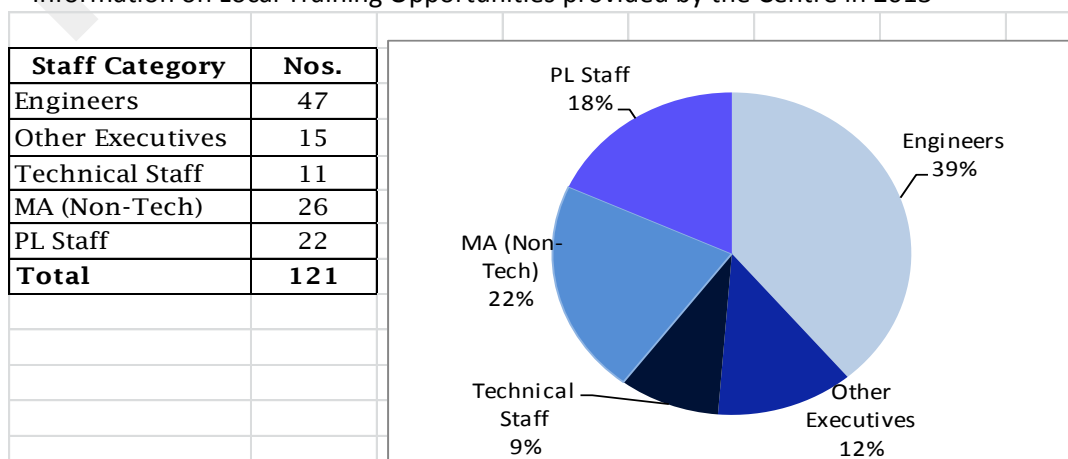
One – Day Employees’ Educational Program was conducted with the assistance of an officer of Ja-Ela Labour Office on 05 September 2013 at TMD Auditorium and around 50 numbers of employees had participated it. The topics that were discussed basically were, “Psychology for Conflict Resolution, Social dialogue on work ethics and positive attitudes. A video presentation on “prevention of HIV/AIDS was also displayed after the theoretical session.

### 5.1.2 Local Training/ Skill Development Programmes

NERDC always provides training opportunities for its staff to enhance their knowledge and skills in order to equip them with the present day needs and to obtain optimal service out of them.

In the year 2013, Centre had provided one hundred twenty one (121) local training opportunities for its staff members. Total cost spent for local staff training was one million one hundred twenty eight thousand five hundred and seventy Sri Lankan Rupees (SLR1,128,570/-) including the Postgraduate facilities financed by the Centre for its staff. Whilst providing such local training opportunities, NERDC had also given three (03) staff members foreign training opportunities under Scholarships/Fellowship/short term Training Programmes to gain international exposure to develop their knowledge and skills. Such knowledge and skills is bound to inject new working styles and methodologies, which could be applicable to most of our systems and the cost spent over that was two hundred sixty thousand seven hundred and fifty three (260,753/-)Sri Lankan Rupees.

Information on Local Training Opportunities provided by the Centre in 2013



## Skilled Development Programmers - 2013

No.	Name	Designation	Department	Programme	Duration	Training Institute	Course Fee
01	Mr. N P T Perera	Research Engineer	E&EMC	Workshop on Effective Proposal Writing	10/01/2013	National Science Foundation	Rs.2,000/-
02	Mr. S A P Shalinda Silva	Research Engineer	AE&PHT	Do	Do	Do	Rs.2,000/-
03	Mr. N P Kumarasinghe	Research Engineer	RED	Do	Do	Do	Rs.2,000/-
04	Mr. S P Perera	Research Engineer	DF&CI	Do	Do	Do	Rs.2,000/-
05	Mr. S Wijesooriya	Marketing Officer	TMD	Do	Do	Do	Rs.2,000/-
06	Mrs. D V S Perera	Finance Manager	Finance	Two Days Workshop on Financial Reporting Compliance with Accounting Standards	16/01/2013& 22/01/2013	Skills Development Fund Ltd.	Rs.4,500/-
07	Mrs. D S C Wanniarachchi	Management Assistant	HR	Telephone Skills and Etiquette Training for Secretaries & Receptionists	18/01/2013	Skills Development Fund Ltd.	Rs.4,500/-
08	Mrs. B A L P Bollegala	Management Assistant	HR	Do	Do	Do	Rs.4,500/-
09	Mr. B R Karunaratne	Management Assistant	HR	Workshop on Transport Management	31/01/2013	Skills Development Fund Ltd.	Rs.4,500/-
10	Mr. A D L S Wimalaweera	Management Assistant	Technology Park	Skills Development for Development Assistants & Management Assistant	22/01/2013	Skills Development Fund Ltd.	Rs.4500/-
11	Mrs. J P A D S I Jayasekara	Director (HR)	HR	Formal Procedure of Handling Personal Files	22/01/2013-23/01/2013	PRAG Institute	Rs.9,500/-
12	Miss. I P B Nisansala	Management Assistant	HR	Do	Do	Do	Rs.9,500/-
13	Mrs. P M G Pathiraja	Senior Research Scientist	E&EMC	Workshop on Patent Drafting	28/01/2013-01/02/2013	National Science Foundation	Rs.12,000/-
14	Miss. K U C Perera	Research Engineer	AE&PHT	Do	Do	Do	Rs.12,000/-
15	Mr. H H SKumara	Management Assistant	Civil Engineering	Developing Management Assistants	15/02/2013	Skills Development Fund Ltd.	Rs.4,500/-
16	Mr. D H E Kalyanasiri	Technical Assistant	Civil Engineering	Certificate course on Contract and Procurement Management Course	17/02/2013-04/10/2013 (30 days) Thursdays	Institute for Construction Training & Development	Rs.50,000/-
17	Mr. A H Piyasiri	DDG (S)	DDG Office	Workshop on Human capital Management for Aspiring HR Professionals	27&28/02/2013	Skills Development Fund Ltd.	Rs.8,000/-
18	Miss. O L C F Perera	Confidential Secretary	DG's Office	Secretarial Practices	21, 28/02/2013 & 07, 14/03/2013	Skills Development Fund Ltd.	Rs.14,500/-
19	Mrs. K H B Laitan	Management Assistant	DG's Office	Do	Do	Do	Rs.14,500/-
20	Mr. D M P N Dharmawardana	Management Assistant	Supplies	Stores Management & Purchasing Procedure	22&23/02/2013	Skills Development Fund Ltd.	Rs.8,000/-

No.	Name	Designation	Department	Programme	Duration	Training Institute	Course Fee
21	Mr. H M L U Herath	Principal Research Engineer	DICI	Safety & Health Workshop	12/03/2013	Office of the District Factory Inspecting Engineer	Free of charge
23	Mr.SumithChandrasiri	Labourer	Civil	Enhancing Skills of Minor Employees	28/02/2013	Skills Development Fund Ltd.	Rs.4500/-
24	Mr.NimalWijeratne	Labourer	E & EMC	Do	Do	Do	Rs.4500/-
25	Mr.H P S PParanamana	Labourer	E & EMC	Do	Do	Do	Rs.4500/-
26	Mr.G A R Silva	Labourer	TMD	Do	Do	Do	Rs.4500/-
27	Mr.R I P Peiris	Labourer	Technology Park	Do	Do	Do	Rs.4500/-
28	Mr. A T M Kumara	Welder	RED	Do	Do	Do	Rs.4500/-
29	Mr. K R Jayashantha	Welder/Fitter	RED	Do	Do	Do	Rs.4500/-
30	Mr. S W Abewardana	Office Aid	HR	Do	Do	Do	Rs.4500/-
31	Mr. W L M J Perera	Labourer	HR	Do	Do	Do	Rs.4500/-
32	Mr. S A P Shalinda Silva	Research Engineer	AE&PHT	Practical Finite Element Analysis Concepts & Applications	15,16,22,23/03/2013 (four days)	University of Peradeniya	Rs.24,000/-
22	Mrs. D V S Perera	Finance Manager	Finance	Workshop of Taxations	23, 24/03/2013	Skills Development Training Institute.	Rs.6500/-
33	Mrs. A G N P K Anhettigama	Accounts Assistant	Finance	Do	Do	Do	Rs.6500/-
34	Miss. J D Darshani	Accounts Assistant (Cashier )	Finance	Do	Do	Do	Rs.6500/-
35	Mr. B P Susantha Kumara	Internal Auditor	Internal Audit	Internal Auditing Programme	02/04/2013	PRAG Services (pvt) Ltd.	Rs.8500/-
36	Miss. N P T Perera	Research Engineer	E & EMC	Professional Approach to Electricity Costing and Tariffs	22/05/2013	Sri Lanka Energy Managers Association	Rs.5600/-
37	Miss J M M I K Jayalath	Technical Assistant	EE&M	Do	Do	Do	Rs.5600/-
38	Eng. D Ananda Namal	Director General	Management	Productivity Kaizen and 5S Training	06/06/2013	MC Quire RENS & Jones (pvt.) Ltd.	Rs.7250/-
39	Mr R Thushyanthan	Research Engineer	E & EMC	Cleaner Production consultant Developing Training Programme	03-07/06/2013 & 07-11/06/2013 (7 days)	National Cleaner Production Centre	Free of charge
40	Miss I S Dikkumbura	Technical Assistant	E & EMC	Do	Do	Do	Rs.30,000/-
41	Mr.A R C Salgado	Principal Research Engineer	DICI Dept.	5S Application in Productivity and Quality Improvement	25-26/06/2013	Sri Lanka Standards Institution ,	Rs.6720/-
42	Miss N P T Perera	Research Engineer	E & EMC	Do	Do	Do	Rs.6720/-
43	MrD M P N Dharmawardana	Management Assistant	Supplies	Do	Do	Do	Rs.6720/-
44	Miss J M M I K Jayalath	Technical Assistant	EE&M	Do	Do	Do	Rs.6720/-
45	Miss B R Premaratne	Technical Assistant	AE&PHT	Do	Do	Do	Rs.6720/-
46	Mrs K K S D Pushpasiri	Technical Officer	RED	Do	Do	Do	Rs.6720/-
47	Mrs U A N Fernando	Management Assistant	TMD	5S Application in Productivity and Quality Improvement	03/07/2013 (1/2 day)	Do	Rs. 1680/-
48	MrM D Devaraja	Management Assistant	RED	Do	Do	Do	Rs. 1680/-

No.	Name	Designation	Department	Programme	Duration	Training Institute	Course Fee
49	Mr. K G N Rathnayake	Asst. Director (Admin)	HR	Super 5S for a Super Efficient Work Place	21/06/2013	BIZ EX Consulting (pvt) Ltd,	Rs.6900/-
50	Mr. A R C Salgado	Research Engineer	DF&CI	Do	Do	Do	Rs.6900/-
51	Eng. G K K A De Silva	Deputy Director General (P)	Management	Seminar on Modern Bridges & Urban Floyovers	27/06/2013	Society of Structural Engineer	Rs.4000/-
52	Mr. W P R D Weerasinghe	Principal Research Engineer	Civil	Do	27/06/2013	Do	Rs.4000/-
53	Mr. D D Ananda Namal	Director General	Management	Balanced Score card	10/07/2013	MC Quire RENS & Jones pvt, Ltd.	Rs.8120/-
54	Mr. G K K A De Silva	Deputy Director General (R&D)	Management	Do	Do	Do	Rs.8120/-
55	Mr. A H Piyasiri	Deputy Director General (S)	Management	Do	Do	Do	Rs.8120/-
56	Mr. B P S Kumara	Internal Auditor	Internal Audit	Course on VAT & SVAT	16/07/2013	PRAG Services (pvt) Ltd.	Rs.8000/-
57	Mr. R Thushyanthan	Research Engineer	E & EMC	Time and Task Management	13/07/2013	IESL	Rs.6500/-
58	Mr. J A A D Jayasooriya	Research Fellow / Head of Department	E & EMC	Assessor Training for Accreditation of GHG validation / verification bodies	16,17,18/07/2013	Sri Lanka Accreditation Board for Conformity Assessment	Rs. 45,696/-
59	Mrs. D S C Wanniarachchi	Management Assistant	HR	Maintenance of Personal Files	19/07/2013	Skills Development Fund Ltd.	Rs.4500/-
60	Mrs. L K W Nilmini Perera	Management Assistant	HR	Do	Do	Do	Rs.4500/-
61	Mr. R Thushyanthan	Research Engineer	E & EMC	Procurement Management	20/07/2013	IESL	Rs.6500/-
62	Eng. D D Ananda Namal	Director General	Management	International Conference on Transition to Efficient Lighting	26/07/2013	IESL	Rs.7500/-
63	Mrs. H D C Hettiarachchi	Engineer	EE&M	Do	26/07/2013	Do	Rs.7500/-
64	Mr. M K S Sathis Kumara	Technical Assistant	EE&M	Do	26/07/2013	Do	Rs.7500/-
65	Ms. W M N Weerasekara	Research Engineer	E & EMC	Do	26/07/2013	Do	Rs.7500/-
66	Ms. H D N B Premachandra	Research Engineer	E & EMC	Do	26/07/2013	Do	Rs.7500/-
67	Mr. K T Jayasinghe	Research Fellow	E & EMC	Annual Session 2013 29 <sup>th</sup> Annual Meeting	26/07/2013	Sri Lanka Energy Managers Association	Rs.1500/-
68	Mr. K A G Wickramasinghe	Management Assistant	HR	Vehicle Maintenance Course	07/08/2013	PRAG Services (pvt) Ltd.	Rs.8000/-
69	Mr. J M R S Jayasinghe	Accountant	Finance	Annual Stock Verifications & Disposal Procedure	12 & 13/08/2013	Skills Development Fund Ltd.	Rs.8000/-
70	Mrs. D M A K Digala	Engineer	Civil	Preliminary First Aid Training Programme	31/07/2013	Sri Lanka Red Cross Society	Rs.600/-
71	Mr. D D W Dissanayake	Tool Keeper	Civil	Do	Do	Do	Rs. 600/-
72	Mrs. Y M M K Ranatunga	Principal Research Engineer	AE&PHT	Do	Do	Do	Rs.600/-
73	Mr. M L A Peiris	Welder Fitter	AE&PHT	Do	Do	Do	Rs.600/-

No.	Name	Designation	Department	Programme	Duration	Training Institute	Course Fee
74	Mr. W R P M Isuru	Office Aid	Finance	Preliminary First Aid Training Programme	31/07/2013	Sri Lanka Red Cross Society	Rs.600/-
75	Mrs. G V L Vijayanthi	Management Assistant	Internal Audit	Do	Do	Do	Rs.600/-
76	Mr. H N Mahesh Kumara	Office Aid	Technology Park	Do	Do	Do	Rs.600/-
77	Mr. H M L U Herath	Principal Research Engineer	DF&CI	Do	Do	Do	Rs.600/-
78	Mr. G P L D C Jayathilaka	Machinist	DF&CI	Do	Do	Do	Rs.600/-
79	Mrs. K K S D Pushpasiri	Technical Officer	RED	Do	Do	Do	Rs.600/-
80	Mr. M D Devaraja	Management Assistant	RED	Do	Do	Do	Rs.600/-
81	Mr. B C Saman Kumara	Welder /Fitter	RED	Do	Do	Do	Rs.600/-
82	Mrs. R M T Udayani	Management Assistant	Finance	Do	Do	Do	Rs.600/-
83	Mr. H P Sunil Palitha	Welder	AE&PHT	Do	Do	Do	Rs.600/-
84	Mr. H P H Kumara	Research Engineer	EE&M	Do	Do	Do	Rs.600/-
85	Miss. J M M I K Jayalath	Technical Assistant	EE&M	Do	Do	Do	Rs.600/-
86	Mr. D M P N Darmawardane	Management Assistant	Supplies	Do	Do	Do	Rs.600/-
87	Mrs. L K W NilminiPerera	Management Assistant	HR	Do	Do	Do	Rs.600/-
88	Mr. W L M JPerera	Labourer	HR	Do	Do	Do	Rs.600/-
89	Mr. A A D Pilip Anthony	Pipe Fitter	HR	Do	Do	Do	Rs.600/-
90	Mr. S W Abewardhane	Office Aid	HR	Do	Do	Do	Rs.600/-
91	Mr. S A Samantha	Office Aid	D G's Office	Do	Do	Do	Rs.600/-
92	Mr. M A R P Mallawaarachchi	Labourer	Main Stores	Do	Do	Do	Rs.600/-
93	Mr. A L S Wimalaweera	Management Assistant	Technology Park	Do	Do	Do	Rs.600/-
94	Mr. M S Ananda	Management Assistant	Technology Park	Do	Do	Do	Rs.600/-
95	Mr. N A D D J Prasanna	Engineer	DF&CI	Course on Maintenance of Building Air Conditioning Systems	26-28/07/2013	Construction Equipment Training Centre	Rs.14,200/-
96	Mr. M K S Sathis Kumara	Technical Assistant	EE&M	Operation & Maintenance of Generators	27-28/08/2013	Construction Equipment Training Centre	Rs. 5500/-
97	Mrs. P M G Pathiraja	Senior Research Scientist	E & EMC Dept.	Assessor Training for Good Laboratory practice	28-29/07/2013	Sri Lanka Accreditation Board for Conformity Assessment	Rs.45,714.29
98	Mr. S Vidyaratne	Senior Research Engineer	EE&M	Training Programme on Laboratory Quality Management	13-15/08/2013	Sri Lanka Standards Institution	Rs.8,960/-
99	Mr. S Wimalaratne	Research Engineer	Do	Do	Do	Do	Rs.8,960/-

No.	Name	Designation	Department	Programme	Duration	Training Institute	Course Fee
100	Mr. I M Katugampola	Network Administrator	DF&CI	Internal conference in partnership with National IT conference	13-14/08/2013	Computer Society of Sri Lanka,	Rs.16,000/-
101	Mrs. J P A D S I Jayasekara	Director (HR)	HR	Workshop on salary conversions	23/08/2013	Skills Development Fund Ltd.	Rs. 5000/-
102	Mr. A H Piyasiri	Deputy Director General (Services)	Management	Salary Management & Salary Conversation	03/09/2013	PRAG Services (Pvt) Ltd.	Rs.8,000/-
103	Mr. K G N Rathnayaka	Assistant Director Administration	HR	Do	Do	Do	Rs.8,000/-
104	Mr. A R Premawansa	Technical Assistant	Civil Dept.	Maintenance of water Pump & compressor	03-07/09/2013	Construction Equipment Training Centre	Rs.10,000/-
105	Mrs. D V S Perera	Finance Manager	Finance	Awareness Programme on Sri Lanka Public Sector Accounting Standards	04-05/09/2013	Association of Public Finance Accountants of Sri Lanka,	Rs.1000/-
106	Mr. J M R S Jayasinghe	Accountant	Finance	Do	Do	Do	Rs.1000/-
107	Mrs. W D C Priyadarshani	Management Assistant	Supplies	Workshop on Professional Development of Management Assistant.	09/09/2013	Skills Development Fund Ltd.	Rs.4500/-
108	Mrs. U A N Fernando	Management Assistant	TMD	Do	Do	Do	Rs.4500/-
109	Mrs. T D RoshiniNilantha	Management Assistant	AE&PHT	Do	Do	Do	Rs.4500/-
110	Mr.S A AjithSamarasinghe	Electrician	EE&M	Electrical Technology workshop	16/09/2013	Centre for habitat Planning & Development	Rs.3,000/-
111	Miss. J D Darshani	Management Assistant (Cashier)	Finance	Cash Protection & Safe Transportation	17/09/2013	PRAG Services (Pvt) Ltd.	Rs.8,000/-
112	MrAnuraWijepala	Chairman	Management	Outward Bound Workshop	27-29/09/2013	Ministry of Technology & Research	Rs. 10,000/-
113	Mr D D A Namal	Director General	Management	Do	Do	Do	Rs. 10,000/-
114	Mr G K K A De Silva	Deputy Director General (P)	Management	Do	Do	Do	Rs. 10,000/-
115	Mr R Tushiyandan	Research Engineer	E&EMC	Training Programme on Adopting Resource Efficient and Cleaner Production	02-03/10/2013	National Cleaner Production Centre	Rs.7500/-
116	Mr J A A D Jayasuriya	Research Fellow/ Head of Dept.	E&EMC	Do	Do	Do	Rs.7500/-
117	Mr. B P Susantha Kumara	Internal Auditor	Internal Audit	"SLFRS" & LKAS Final Accounts	02/10/2013	PRAG Services (Pvt) Ltd.	Rs.8,000/-
118	Mr. H M L U Herath	Principal Research Engineer	DF&CI	Maintenance Performance	04/10/2013	Construction Equipment Training Centre.	Free of charge
119	Mr. G K K A De Silva	Deputy Director General (P)	Management	Annual Rubber Conference	08/10/2013	Ministry of Plantation Industries	Rs.5,000/-
120	Mr. N K Edirisinghe	Director(Technical)	RED	Do	Do	Do	Rs.5,000/-
121	Mr. R Tushiyandan	Research Engineer	E & EMC	Seminar on upper Kotmale Hydropower Project	14/10/2013	IESL	Rs.1000/-

**FOREIGN SCHOLARSHIPS/SEMINARS/TRAINING-PROGRAMMES/WORKSHOPS – 2013**

	<b>Name &amp; Designation of the Officer</b>	<b>Department</b>	<b>Name of the Programme</b>	<b>Period</b>	<b>Country</b>	<b>Sponsoring Institutions</b>
01	Mr A R C Salgadu Principal Research Engineer	DF&CI	International Training Programme on “Design of Sheet Metal Forming Tools”	14/01/2013 - 22/03/2013	India	Government of India under the India Technical Economic Co-operation (ITEC)
02	Mr A A S P Jayasinghe Director (DF&CI)	DF&CI	International Training on "SME Policy Development - Exposure Visit"	31/03/2013 - 06/04/2013	South Korea	Sri Lankan German Development Cooperation
03	Mr. A H Piyasiri Deputy Director General (Services)	DDG(S)	Ninth Meeting of the Technical Committee and Consultative Workshop on Open Innovation Platform	11/11/2013 - 14/11/2013	Malaysia	Asian and Pacific Centre for Transfer of Technology (APCTT)

## 06. Performance Highlights of the Year 2013

### Introduction

As a leading Engineering, Research and Development organization in Country, National Engineering Research and Development Center (NERDC) of Sri-Lanka has involved in research and development projects, pilot projects, providing services to industries, popularization programs, and promotion of science education among school children during the year 2013. Output and outcome of the activities have been contributed to the development of the country's economic match with the government development program and Mahinda Chintanaya in different key areas such as energy, housing, environmental, small and medium scale industries.

During the year 2013, Centre has initiated special program with the assistance from Finance Commission and all provincial councils to popularize cost effective building technologies through out the country. As a first step, the Centre trained key persons in Provincial level. Construction of such buildings has been commercialized with the Western Province.

In parallel with the Dayata Kirula Exhibition, Consultancy services have been provided based on the cost effective construction technologies developed by NERDC for construction of 25 Nos. of buildings as library buildings in Anuradhapura district and recently these buildings were handed over to the schools by His Excellency President Mahinda Rajapasa in Anuradhapura.

Special project has been commenced with Waste Management Authority of Western Provincial Council to produce compost fertilizer using market garbage at Muthurajawela. The NERDC has involved in R&D part of the project that converts dry batch system into continuous type digester system using the existing digesters.

Development of Temperature Controllable Biomass based Bakery Oven is one of the key projects handled by NERDC during the year 2013 and the Centre expected that output and outcome of the project will save the LP gas and Diesel consumption in bakery industry.

In focusing to development of required technologies for conventional aurvedic medicine system and our traditional medicine system, the NERDC has involved in research and development activities to introduce new machineries and processes to produce medicines required for industry.

1st Engineering Museum in Sri Lanka was declared open by Hon. Minister Partalie Champika Ranawaka, Minister of Technology and Research. Museum has facilitated to demonstrate our ancient technologies relevant to different areas such as facilities of irrigation, traditional medicine, agriculture sector, etc.

In 2013, several measures have been taken to popularize, demonstration and transfer of technologies through electronic media and newspaper articles, conducting training programs on developed technologies and participation in national level exhibitions.

The activities carried out by the NERDC in the year 2013 can be summarized in to 6 groups and most important activities are highlighted.

1. Research and Development
2. Pilot projects
3. Consultancy Services
4. Services to industries
5. Energy and environment
6. Popularization activities
7. Services provided for customers
8. Upgrading of science education

## 1. Research and development activities

The NERDC has involved in research and development activities to develop number of technologies and products focusing on key requirement of the country such as addressing energy crisis, housing for people, solid waste management and technical issues in the industries. Few important research and development projects carried out by the Centre are given below.

**Project :** Biomass fuelled temperature controllable bakery oven.

**Objective :** To develop and disseminate technology for temperature controllable biomass fuelled bakery oven for rice flour mixed bakery products.

**Advantages :**

- Diesel operated and LP Gas Operated bakery oven can be replaced
- Saving of fuel wood compared to traditional system
- Can be moved from place to place
- Temperature controllability
- Promotion of rice flour products to reduce wheat flour imports



**Project :** Improvement of dry batch type biogas generation

**Objective :** To convert dry batch type anaerobic digester to continuous type in order to study the performance in digesting vegetable market garbage at Dikkovita Biogas Plant.



**Advantages :** 20 MT capacity 08 Nos. of batch type digesters have been constructed and it has been found that feeding of garbage is very difficult as lifting of 20 Ft. diameter digester cover is very complicated due to its weight. By converting dry batch system in to continuous type digester system this problem can be avoided.

**Project :** Implementation of fuel wood chips feeding system in selected tea factories

**Objective:** Technology transfer of fuel wood chips feeding system and implementation of this technology in selected tea factories for tea drying processes.



**Advantages :**

- About 25% of firewood can be saved with compared to the conventional wood logs or split wood feeding system.
- Gliricidia can be planted in mass scale as feeding material (fuel) and it will make the system sustainable and provide employment opportunities

**Project :** Development of wood chipping machine

**Objective :** Development, fabrication and testing of fuel wood chipping machine to produce wood chips to operate wood chips feeding system developed by NERDC for tea industry

**Advantages :** Presently available machines operated on using electric saw generates high wastage as dust. The NERDC has developed wood chipping machine operated on sharing action which has high output with less wastage.



**Project :** Investigate the actual cost saving of the NERDC Cost Effective Technology by constructing a model house.

**Objective:** To identify actual cost consumption for construction of a house, based on NERDC technologies for the benefit of ordinary house builders.



**Advantages :** Actual cost saving using with NERDC technologies with compare to the conventional system can be established for benefits of ordinary house builders.

**Technologies Used :**

Foundation	-	NERDC foundation system
Walls	-	Cement Soil Blocks and Slipform wall
Floor slab	-	2" thick composite floor slab
Door & Window Frames	-	Concrete door and window frames
Roof	-	Prestressed concrete purline with Asbestos sheets

The cost can be saved by 30%-35% using this technology when compared to conventional system.

**Project :** Development of Gravel, Sand, Clay & Cement Blocks for wall construction (GSCC) using normal cement sand block making machine.

**Objective :** To develop low cost block for construction of wall . Cement soil block produce using normal block making machine can be made at very low price. Main purpose of the project is to test the parameter of the wall made with GSCC blocks and hence confirm the suitability of the GSCC blocks for wall construction.



**Advantages :**

- Cost of the block can be reduced with compare to cement sand block
- High/advance technology machines are not required for production of blocks
- Cost of the block can be reduced by 20%.

**Project :** Prepare a technical package for Rainwater Harvesting System

**Objective:** To provide technical knowhow for rainwater harvesting technology at domestic level and study the variations of quality of rainwater with time.



**Advantages :** Technical knowhow is available at domestic level to collect rainwater for ordinary people.

**Project :** Compact wastewater treatment system for Vehicle Service Stations

**Objective :** To develop compact type wastewater treatment system to treat the effluent generated at vehicle service stations up to the standard levels and reuse back for the washing process.

**Advantages :**

- Less space
- Readymade unit
- Treat the effluent up to the existing standards
- Low cost



**Project :** Flood water barrier for doorways

**Objective:** To design and fabricate a few types of floodwater barriers for door openings of houses.

**Advantages:** During the rainy season it has seen some parts of the country get flooded and the damage caused by floodwater to properties of houses is enormous.

Due to this reason, there are requests for flood defense system or solutions from the people who are often affected by floods.



**Project :** Field testing of fertilizer applicator

**Objective :** To develop a machine for the applications of fertilizer for coconut plantation with less labour



**Advantages :** Presently labour availability for fertilizer application to coconut plantation is a critical problem for coconut planters as manually application of fertilizer does not meet the requirement of uniform spread and it consumes high labour. The new machine will provide solutions for these issues.

**Project :** Development of machinery for manufacturing of medicine required for ayurvedic and traditional medicine system

**Objective :** To develop machines for improving quality and productivity of making ayurvedic and traditional medicine for ayurvedic and traditional medicine sector.

**Advantages :** Ayurvedic doctors and traditional doctors medicines are able to manufacture high quality medicines at affordable price.



**Project :** Improvement of machine for manufacturing of compressed Cement Stabilized Soil Blocks

**Objective :** To develop machine for manufacturing of compressed cement stabilized soil block to improve the productivity and efficiency of the manufacturing processes

**Advantages :** Production capacity and quality of products of the presently available machine is not satisfactory. Hence, people are reluctant to use cement soil block for building construction due to high manufacturing cost and poor quality. New machine would provide solution to the above issues.

## 2. Pilot project

**Project** :Introduction of cost effective building technologies for construction of government buildings in collaboration with the Finance Commission

**Objective** : To apply cost effective building technologies for construction of buildings in provincial councils. Initially it has been planned to construct two buildings for each provincial council.



**Work completed :**

1. Trained key persons in provincial councils
2. Developed 06 Nos. of typical plans and estimates.
3. Construction of two buildings in Western Province has been commenced

### Construction of buildings

This building has been constructed in order to popularize the NERDC's technologies in Pollonaruwa

Soil blocks have been manufactured with the assistance of Civil Defense Force and with the available soil in adjacent area.

Building : Nurses Quarters for base Hospital, Pollonaruwa

Floor Area : 11,550 Ft<sup>2</sup>

Cost : Rs.243 Million

Cost/Sq.Ft. : Rs.2200

**Technology used:**

Wall	-	Cement
Soil Block	-	
Slab	-	NERDC
slab system	-	
Column	-	6'x6'
Pre-stressed Column	-	
Door and Window frame	-	Precast
concrete frame	-	



### Construction of foot bridges

The NERDC has introduced new technologies to construct foot bridges at low cost to replace un safe Edanda used for crossing canal and stream. Few foot bridges have been completed as pilot project using prestressed and ferrocement technologies.



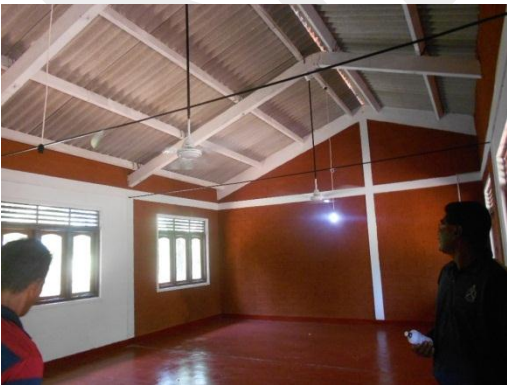
Foot bridge with Ferrocement technology      Foot bridge with prestressed concrete

### 3. Consultancy Services

**Project :** Construction of School Library buildings for Anuradhapura and Monaragala

The NERDC has provided consultancy services for construction of library buildings in Anuradhapura and Monaragala Districts. 49 Nos. of library buildings have been completed. Following technology has been used.

- |                                |   |   |
|--------------------------------|---|---|
| Foundation                     | - | NERD Foundation system  |
| Walls                          | - | Cement Soil Block /Slipform wall system                                   |
| Concrete                       | - | Pre-stressed Concrete   |
| Roof and door and window frame | - | Pre-stressed Concrete trusses and precast concrete door and window frame. |



#### 4. Services to industry

The Centre has provided services for the industries focusing following areas.

1. Energy and environmental management
2. Design and fabrications of moulds for manufacturing industries.

#### 5. Energy and environmental management

Following consultancy services have been carried out for customers by the Energy and Environmental Management Centre. Basically services are focused to environmental related monitoring and consultancy to control various environmental issues and energy related process monitoring and energy management activities for private as well as public sector organizations.

Activity	Achievement	
	Nos.	Financial (LKR)
Energy auditing in industry	05	792,980
Industrial Process monitoring	34	993,150
Boiler Performance and Flue Gas Analysis	94	2,120,173
Providing Environmental Monitoring as per the Regulation	124	2,843,442
Providing Solutions to Control Environmental Issues for Industries	27	1,125,263

#### Laboratory Testing

Laboratory testing has been carried out by the NERDC in the following areas.

Activity	Achievement	
	Nos.	Financial (LKR)
Environmental Laboratory testing	905	953,179
Biomass Laboratory testing and the other testing	4	59,542
Material testing and scanning	33	158,750
Civil Engineering Laboratory Testing	19	107,000
Lamp Testing	302	1,426,000
Battery Testing	19	376,000

## Training Programs Conducted

The NERDC has carried out training programs on developed technologies as well as training programs on special areas such as wastewater, green productivity, energy and environmental, etc.



Activity	Nos.	Income (LKR)
Training program on cost effective technologies	02	275,000
Training program on cement soil block manufacturing	09	350,000
Training program on door & window frame	01	90,000
Training programs conducted under Divi neguma	05	-

## Awareness Programs

During the year 2013, the NERDC conducted 06 Nos. of awareness programs on NERDC developed technologies and 23 Nos. of exhibitions.

### Newspaper Articles and Electronics Media Conducted

In-order to popularize and to educate the people on NERD activities, the Centre has used both electronic media and newspapers during the year 2013.

TV programs conducted	-	10 Nos.
Articles	-	08 Nos.

## 6. Services provide for customers

### Opening of the Museum

The first engineering museum in Sri Lanka has been declaredly opened by the Hon. Minister of Technology & Research Partalie Champika Ranawaka on 14th October 2013. Museum has facilities to demonstrate our old technologies such as Bisso Kotuwa, tools used in our traditional medicine systems, etc.



### ***Technology Park Activities***

Different activities have been carried out to improve the Science Education of the people during the year 2013, especially in school children.

- Total No. of visitors - 10000
- Total Income - Rs.335,845

## 7. **Services provide for upgrading science educations.**

### **Two Day Out Bound Science Program for school children**

Out Bound training programs for school children have been arranged in science park with collaboration of National Science Foundation. Two day fulltime program has been designed to upgrade their science knowledge based on general science principles



## 7. Welfare & Religious Activities

### 7.1 Welfare Association of NERDC

Welfare Association of the NERDC Centre had organized following activities during the year 2013

- Blood Donation Campaign in commemoration of the late VidyajyothiDr. A N S Kulasinghe, one of the founder Chairman of this Centre was held on 24.10.2013.
- Awarding Ceremony was organized on 27.12.2013 to offer prizes for the Children of NERDC staff who had passed year 5 scholarship Examination.



### 7.2 Religious Associations

Two Religious Societies have been established in the NERDC namely, Buddhist Society and Catholic Society. Several activities and programmes were organized by these two societies with the objective of mental and spiritual well-being of the NERDC staff members. One prominent feature of these two societies is that every employee is a member of either the Buddhist Society or the Catholic Society voluntarily.

Following events/activities had been organized/ held by the two religious societies of the Centre during the year 2013.

#### 7.2.1 Buddhist Society

- A Pirith Chanting Ceremony was organized on 01.01.2013 to mark the Beginning of the Centre activities in the year 2013.
- Some of the NERDC members of the Buddhist Society have made labour contribution for construction activities of the 'MahamevnaAsapuva' at Polgahawela on 06.03.2013
- A Dharmadeshana (sermon) was delivered by Ven. NawalaDhammanandaThero on 08.04.2013.
- An alms-giving programme was held at Jayawardhena Children's Home at Weligampitiya, Ja-ela on 18.05.2013.
- A Dharmadeshana (sermon) was delivered by Ven. AmbogamaWimalagna Thero on 19.06.2013.
- Buddhist books, worth of Rs. 15,000/- were purchased for the Buddhist Society Library from the International Book Fair held at BMICH, Colombo in September 2013.
- An annual pilgrimage was organized to worship the Most Sacred Tooth Relics in Kandy and to visit other religious temples nearby on 14.12.2013.



#### 6.2.2 Catholic Society

- Annual Christmas Mass was held on 19.12.2013 by Rev. Father TerenseKithsiriPerera, Medellavita Meson.

## **08. Accounting Policies**

### **1. Basis of preparation**

The balance sheet as at 31.12.2013 and the related financial statements have been prepared in accordance with Sri Lanka Public Sector Accounting Standards which apply to the accrual basis of accounting and set out recognition, measurement, presentation and disclosure requirement dealing with transaction and events in general purpose financial statements.

The financial statements are prepared on a going concern basis.

The financial statements are prepared considering the accrual basis of accounting except for cash flow information by using the accrual basis of accounting.

The financial statements are presented separately each material class of similar items. The financial statements are presented results from processing large number of transactions or other events that aggregated in to classes according to their nature of function.

The financial statements are presented by the Centre has not offset the assets and liabilities or income and expenses unless required or permitted by a standard.

### **2 Changes in accounting policies**

The accounting policies adopted are consistent with those of the previous financial year.

### **3. Comparative information**

The accounting policies applied by the Centre are consistent with those used in the previous year. Previous two year's figures and phrases have been re-arranged, wherever necessary, to conform to the current year's presentation.

### **4. Going Concern**

When preparing financial statements, management has made assessment of the liability of the constituents of the Centre to continue as a going concern, taking into account all available information about the future.

### **5. Allowance for doubtful debts**

The Centre reviews at each balance sheet date all receivables to assess whether an allowance should be recorded in the Income Statement. The management uses judgment in estimating such amounts in the light of the duration of, outstanding and any other Factors that indicate uncertainty in recovery.

## 6. VALUATION OF ASSETS AND THEIR BASES OF MEASUREMENT

### 6.1 Property, plant and equipment

#### a) Cost and valuation

Property, plant and equipment is stated at cost or fair value less accumulated depreciation and any accumulated impairment in value.

The carrying values of property plant and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable. All items of property, plant and equipment are initially recorded at cost.

Where items of property, plant and equipment are subsequently revalued, the entire class of such assets is revalued at fair value. When an asset is revalued, any increase in the carrying amount is credited directly to a revaluation reserve, except to the extent that it reverses a revaluation decrease of the same asset previously recognized in the Income Statement, in which case the increase is recognized in the Income Statement. Any revaluation deficit that offsets a previous surplus in the same asset is directly offset

against the surplus in the revaluation reserve and any excess recognized as an expense. Upon disposal, any revaluation reserve relating to the asset sold is transferred to retained earnings. Items of property, plant and equipment are de-recognized upon replacement, disposal or when no future economic benefits are expected from its use. Any gain or loss arising on de-recognition of the asset is included in the Income Statement in the year the asset is de-recognized.

When assets are rehabilitated using the Capital funds individual assets are considered for revaluation at the time of rehabilitation is done.

#### Funding & Depreciation

Funds for acquisition of Fixed Assets are provided by the General Treasury. In determining the gross carrying amount of assets we have considered, the delivered to site value inclusive of FOB, CIF, clearing, transport & other local charges incurred for bringing to the condition at present. Assets are depreciated at the following rates on straight line method.

Asset	Depreciation
Buildings	2.5
Office Equipment	15
Tools	15
Demonstration Items	15
Computers	33.33
Vehicles	15
Furniture & Fittings	10
Plant & machinery& Lab Equipment	15
Library Books	5
Infrastructures	15

## Inventories

Inventories other than produce inventories are valued at the lower of cost and net realizable value after making due allowances for obsolete and slow moving items.

The costs incurred in bringing inventories to its present location and condition, are accounted for as follows:

- Materials  
At actual cost on first-in first-out basis.
- b) Work-in- progress

At the cost of direct materials, direct labour and an appropriate proportion of production overheads based on normal operating capacity.

- c) Finished goods

At purchase cost and /or cost of direct materials, direct labour and an appropriate proportion of production overheads based on normal operating capacity.

- g) Consumables and Spares
- At actual cost

### Divinaguma National Program

Ministry of Traditional Industries and small Enterprise Development had advance money to purchase material & equipment to be distributed to trained beneficiaries of Divinaguma Program industrial sector.

### Trade and other receivables

Trade and other receivables are stated at the amounts they are estimated to realize, net of allowances for bad and doubtful receivables. Allowances have been made for bad and doubtful debts. Bad debts are written off when identified. In calculating fair value cost of capital is taken @ 17%.

### Cash and cash equivalents

Cash and cash equivalents in the cash flow statement comprise cash at bank and in hand and short term deposits with a maturity of 3 months or less.

## LIABILITIES AND PROVISIONS

### Employee Benefit Liabilities

#### Retirement Benefits

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 to employees from year one of service in the Centre. This provision is funded by the Treasury and when required.

Provision is calculated as follows

(last drawn Basic Salary plus cost of living) x  $\frac{1}{2}$  x Completed Number of Years.

## **Provision of Research Awards**

### **Awards to Winning Research Engineers**

The Members of BoDs. approved to reimburse some of the funds received through awards to the NERDC, among the applicable Research Engineers, as per the following .

- a) Reimbursement of 60% of the award money among the Researchers involved in award winning Research Projects. Researchers would be identified as those, who were responsible for the submission of the applications for the awards.
- b) Allocated amount is distributed among the team members proportional to the salary as at the date of application closing date.
- c) This will apply to past awards and future awards.
- d) For the past awards, reimbursement will be done only to the Researchers, who are at service of NERDC at present (but for calculation, all the team members will be considered.)
- e) On the comments made by the Members of BoDs., the former Chairman explained that the amount identified for Researchers, who are not presently not employed would be retained along with the 40% of the award money for future activities of NERDC in promoting the research culture.

### **Grants**

Grants are recognized where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with. When the recurrent grant relates to an expense item, it is recognized as income over the period necessary to match the grant on a systematic basis to the costs that it is intended to compensate. Where the Capital grant relates to an asset, it is set up as deferred income. Where the Centre receives non-monetary grants, the asset and that grant are recorded at nominal amounts and are released to the Income Statement over the expected useful life of the relevant asset by equal annual installments. Major portion of grants are received from General Treasury.

## **Provisions, contingent assets and contingent liabilities**

Provisions are made for all obligations existing as at the Balance Sheet date when it is probable that such an obligation will result in an outflow of resources and a reliable estimate can be made of the quantum of the outflow. All contingent liabilities are disclosed as a note to the financial statements.

## **Creditors**

Trade creditors are recognized at the time of receiving goods to the Centre.

## **INCOME STATEMENT**

### **Revenue recognition**

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Centre, and the revenue and associated costs incurred or to be incurred can be reliably measured. Revenue is measured at the fair value of the consideration received or receivable, net of trade discounts and value added taxes. The following specific criteria are used for recognition of revenue.

#### **a) Sale of develop products**

Revenue from the sale of developed products, is recognized when the significant risk and rewards of ownership of the products have passed to the buyer with the Centre retaining neither a continuing managerial involvement to the degree usually associated with ownership, nor an effective control over the products are sold.

**b) Rendering of services**

Revenue from rendering of services is recognized in the accounting period in which the services are rendered or performed.

**c) Construction Revenue**

Construction revenue is recognized by reference to the stage of completion, determined by taking into accounts the labour hours incurred to date as a percentage of total estimated labour hours for each contract. Where the contract outcome cannot be measured reliably, revenue is recognized only to the extent of expenses incurred that are recoverable.

**d) Turnover based taxes**

Turnover based taxes include Value Added Tax, Economic Service Charge, Turnover Tax and Nation Building Tax. Centre Companies in the Centre pay such taxes in accordance with the respective statutes.

**Interest income**

Interest income is recognized as and when the interest accrues.

**Gains and losses on disposal of asset**

Net gains and losses of a revenue nature arising from the disposal of property, plant and equipment and other non-current assets, are accounted for in the Income Statement, after deducting from the proceeds on disposal, the carrying amount of such assets and the related selling expenses. Gains and losses arising from activities incidental to the main revenue generating activities and those arising from a Centre of similar transactions which are not material, are aggregated, reported and presented on a net basis.

**(e) Other Income**

Other income is comprised with net income of Technology transfer projects which are completed, Interest income on call deposits, Liquidity damages, Bond income, Interest on loans, Non refundable deposits, Registration of Suppliers, Sundry income, Damaged Stock disposal income, Gain on disposal of assets and overhead recovery based on accrual concept.

**Differed income**

Differed income is ascertained from the depreciation of asset purchase out of government funds.

**Expenditure**

Expenses are recognized in the income statement on the basis of a direct association between the cost incurred and the earning of the specific items of income where appropriate. All expenditure incurred in running of the Centre and depreciation of the property, plant & equipment has been

charged to income in calculating the income over expenditure. Management has decided not to charge Labour & overheads to maintenance jobs.

#### Research & Development

Accounting Policy for Research & Development mainly funded by the Treasury. Income received from outside clients a set off against the expenditure.

When costing the research projects direct material, has been considered.

NERDC

## 9 Financial Positions as at 31/12/2013

<b>NATIONAL ENGINEERING RESEARCH &amp; DEVELOPMENT CENTRE OF SRI LANKA</b>				
2P/17 B ,Industrial Estate ,Ekala ,Ja -Ela.				
Financial Position for the year ended 31.12.2013				
				Figures in Rs.
	Notes	2013	Re stated 2012	Re stated 2011
<b>Assets</b>				
<b>Current Assets</b>				
Cash & Cash Equivalent	1	64,272,582.54	16,120,227.81	18,744,620.43
Trade Receivables	2	11,762,085.64	21,252,185.64	4,934,545.48
Inventories	3	10,419,723.36	12,037,248.97	10,663,132.59
Pre payments	4	213,744.02	200,462.85	173,933.14
Other Current Assets	5	68,304,107.17	65,463,949.23	78,235,494.44
Deposit	6	20,121,659.60	47,879,600.98	61,368,555.78
		175,093,902.33	162,953,675.48	174,120,281.86
<b>Non-current Assets</b>				
Property Plant & Equipment	7	427,191,173.11	476,196,337.02	496,481,849.95
Other Intangible Assets	8	178,320.45	160,400.45	136,880.45
		427,369,493.56	476,356,737.47	496,618,730.40
<b>Total Assets</b>		<b>602,463,395.89</b>	<b>639,310,412.95</b>	<b>670,739,012.26</b>
<b>Liabilities</b>				
<b>Current Liabilities</b>				
Trade & Other payables	9	22,776,783.88	26,669,429.03	32,401,745.94
Total Current Liabilities		22,776,783.88	26,669,429.03	32,401,745.94
<b>Non Current Liabilities</b>				
Provision for Gratuity	10	72,788,724.13	67,315,187.85	62,717,094.25
Deferred Income	11	135,600,256.75	167,000,895.17	170,212,660.26
		208,388,980.88	234,316,083.02	232,929,754.51
<b>Total Liabilities</b>		<b>231,165,764.76</b>	<b>260,985,512.05</b>	<b>265,331,500.45</b>
<b>Total Net Assets</b>		<b>371,297,631.13</b>	<b>378,324,900.90</b>	<b>405,407,511.81</b>
<b>Net assets/Equity</b>				
Capital contributed by the government entities	12	214,023,661.96	192,276,714.26	199,093,044.01
Revaluation Reserve	13	355,653,347.74	354,805,770.31	350,225,917.20
Accumulated surpluses/(deficits)	13	(198,379,378.57)	(16,877,583.67)	(143,911,449.40)
<b>Total Net assets/Equity</b>		<b>371,297,631.13</b>	<b>530,204,900.90</b>	<b>405,407,511.81</b>

## 10 statement of Financial Performances for the year ended 31/12/2013

Statement of Financial Performances for the Year ended 31.12.2013				
				Figures in Rs.
	Schedule No	2013	Re stated 2012	Re stated 2011
<b>Revenue</b>				
Transfers from the government entities	1	161,058,376.34	147,441,000.00	139,687,000.00
Deffered Income	2	60,354,983.38	55,692,094.84	50,528,530.38
Other Revenue	3	19,238,601.77	19,761,029.16	22,474,763.41
<b>Total Revenue</b>		<b>240,651,961.49</b>	<b>222,894,124.00</b>	<b>212,690,293.79</b>
<b>Expenditure</b>				
Administrative cost	4	174,730,478.34	146,499,144.22	142,001,324.45
Other Expenses	5	16,691,465.75	23,825,787.42	24,283,391.73
Depreciation	6	78,805,847.10	77,345,646.80	72,450,217.17
Financial Cost	7	45,965.20	69,679.83	125,129.06
<b>Total Expenditure</b>		<b>270,273,756.39</b>	<b>247,740,258.27</b>	<b>238,860,062.41</b>
<b>Surplus/( Deficit) for the period</b>		<b>(29,621,794.90)</b>	<b>(24,846,134.27)</b>	<b>(26,169,768.62)</b>

## 11 Statement of Equity Change

13. Statement of Change in Equity as at 31/12/2013

Figures in Rs.

	Capital Introduced	Government Contributed Capital	Capital from Other sources	Re stated Revaluation surplus	Accumulated Surplus / (Deficit)	Total Net Assets/Equity	Re Stated Balance as at 31.12.2012
Re stated Balance as at 1/1/2011	1,000,000.00	71,071,006.92	119,985,089.87	349,743,581.49	(117,741,680.78)	424,057,997.50	428,313,301.52
Changes in accounting policies							
Restated Balances							
<b>Changes in equity for 2011</b>							
Capital Grant received		82,257,610.40				82,257,610.40	34,308,000.00
Research Grant transferred to Comprehensive Income		(10,337,000.00)				(10,337,000.00)	
Capital Grant Transferred to Diffed Income		(64,883,663.18)				(64,883,663.18)	(31,300,437.79)
Total comprehensive Income					(26,169,768.62)	(26,169,768.62)	(6,787,640.03)
Increase in revaluation reserve				482,335.71		482,335.71	(475,226.20)
Balance as at 31/12/2011	1,000,000.00	78,107,954.14	119,985,089.87	350,225,917.20	(143,911,449.40)	405,407,511.81	424,057,997.50
Restated Balances	1,000,000.00	78,107,954.14	119,985,089.87	350,225,917.20	(143,911,449.40)	405,407,511.81	424,057,997.50
<b>Changes in equity for 2012</b>							
Capital Grant received		48,289,000.00				48,289,000.00	82,257,610.00
Research Grant transferred to Comprehensive Income		(2,625,000.00)				(2,625,000.00)	(10,337,000.00)
Capital Grant Transferred to Differed Income		(52,480,329.75)				(52,480,329.75)	(64,883,663.18)
Total comprehensive Income					(24,846,134.27)	(24,846,134.27)	(26,169,768.62)
Increase in revaluation reserve				4,579,853.11		4,579,853.11	482,335.71
Balance as at 31/12/2012	1,000,000.00	71,291,624.39	119,985,089.87	354,805,770.31	(168,757,583.67)	378,324,900.90	405,407,511.41
Previous Year adjustments							
<b>Changes in equity for 2013</b>							
Capital Grant received		61,519,669.00				61,519,669.00	48,289,000.00
Research Grant transferred to Comprehensive Income		(10,818,376.34)				(10,818,376.34)	(2,625,000.00)
Capital Grant Transferred to Differed Income		(28,954,344.96)				(28,954,344.96)	(52,480,329.75)
Total comprehensive Income					(29,621,794.90)	(29,621,794.90)	(24,846,134.27)
Increase in revaluation reserve				847,577.43		847,577.43	4,579,853.11
Balance as at December 31, 2013 c/f	1,000,000.00	93,038,572.09	119,985,089.87	355,653,347.74	(198,379,378.57)	371,297,631.13	378,324,900.50

## 12 Cash flow Statement for the year ended 31/12/2013

### Cash Flow Statement For The Year Ended 31st December 2013

	Figures in Rs.		
	2013	2012	2011
<b>Net cash flows from operating activities</b>			
<b>Surplus/ (deficit) from ordinary activities</b>	(29,621,794.90)	(24,846,134.27)	(26,169,768.62)
<b>Non- cash movements</b>			
Depreciation	78,805,847.10	77,345,646.80	72,450,217.17
Increase in provision for bad debts	3,223,613.49	(3,636,903.57)	430,200.88
Increase/(decrease) in payables	(3,892,645.15)	(5,732,316.91)	5,694,225.24
Increase /(decrease) in borrowings	(31,400,638.42)	(3,211,765.09)	14,355,132.80
Increase/(decrease) in relating to employee costs	5,473,536.28	4,598,093.60	4,984,076.00
(Gains)/losses on sale of property, plant and equipment	(29,882.20)	(10,070.73)	(51,999.00)
(Increase)/decrease in other current assets	26,522,027.88	24,859,853.92	(23,774,438.79)
Increase in investments due to revaluation	847,577.43	4,579,853.11	482,335.71
(Increase)/decrease in receivables	6,266,486.51	(12,680,736.59)	(656,170.33)
<b>Net cash flows from operating activities</b>	<b>56,194,128.02</b>	<b>61,265,520.27</b>	<b>47,743,811.06</b>
<b>CASH FLOW FROM INVESTMENT ACTIVITIES</b>			
Purchase of plant & equipment	(29,819,842.39)	(57,083,702.86)	(64,906,958.18)
Proceeds from sales of equipment	31,121.40	10,119.72	52,000.00
<b>Net cash flows from investment activities</b>	<b>(29,788,720.99)</b>	<b>(57,073,583.14)</b>	<b>(64,854,958.18)</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES</b>			
Capital grant	61,519,669.00	48,289,000.00	82,257,610.40
Transferred to Research Income	(10,818,376.34)	(2,625,000.00)	(10,337,000.00)
Transferred to differed income	(28,954,344.96)	(52,480,329.75)	(64,883,663.18)
<b>Net cash flow from financing activities</b>	<b>21,746,947.70</b>	<b>(6,816,329.75)</b>	<b>7,036,947.22</b>
<b>Net increase/(decrease) in cash &amp; cash equivalents</b>	<b>48,152,354.73</b>	<b>(2,624,392.62)</b>	<b>(10,074,199.90)</b>
<b>Cash &amp; cash equivalent at beginning of the period</b>	<b>16,120,227.81</b>	<b>18,744,620.43</b>	<b>28,818,820.33</b>
<b>Cash &amp; cash equivalent at end of the period</b>	<b>64,272,582.54</b>	<b>16,120,227.81</b>	<b>18,744,620.43</b>

## 12. Notes to the accounts as at 31/12/2013

### 1. Previous Year Adjustments

		2012	2011	2010	Effect to the balance sheet
	Balance b/f	(25,146,829.00)	(26,704,868.62)	(6,724,769.23)	
1.1	Over provision of Incentive 2012	3,000			Incentive provision is reduced by Rs.3,000.00
1.2	Under provision of Incentive	(444,733.09)			Accrued incentive will be increase by Rs. 444,733.09
1.3	APH/PILOT/103/2011 Over provision of expenditure		25,000.00		Accrued charges of year 2011 is reduced
1.4	Creditors settlement of Rs.4,000.00 has been charged to CVL/PILOT/202/2010 in year2011		4,000.00		Trade creditors are reduced by Rs.4,000.00
1.5	Over provision of Salaries			5,806.20	Provision of salary arrears is reduced.
1.6	Deposits receivable prior to 2010 is written off according to BD No 7-2013 of 21/8/2013 under item No 3.6			47,150.00	Deposits receivable is reduced by Rs 47,150.00
1.7	Over provision of damage stock are corrected	15,612.89			Damage stock provision is reduced by Rs .15,612.89
1.8	Over provision of incentive for Research work has been written off	291,175.57			
1.9	2011 Income is accounted as 2010 income-ELE/COM/61/2011and Income of ELE/COM/44/2010 is reduced		506,000.00	(506,000.00)	In year 2010 customer advance account will be increase by Rs.506,000.00 and in year 2011 advance account will be reduced by Rs. 506,000.00
1.10	A loan given for an employee under the easy payment loan scheme under the project No CVL/COM/51/2012	(10,415.73)			
1.12	Clearing charges due to World express is been written back			15,053	Trade creditors are reduced
1.13	Over provision of depreciation		(268,134.86)		Asset balance is increased

## 2. Deposits kept as securities for Guarantee Bonds

Guarantee is issued to	Bond No	Certificates Pledge as securities	Amount Rs	Bank	Amount Rs
Toyota Lanka (Pvt) Ltd	Bank Guarantee-15/2008	C/33734579-507908	100,000.00		75,000.00

## 3. Temporary deposits

Funds received as bond Income from NERDC employees who has left the services before completion of the bond is invested in State Institutions Temporary Surplus Trust Fund maintained at Bank of Ceylon on 30 July 2012 Rs.8,994,089.90 and with dividends & interest it has increase to Rs.10,469,194.57.

Advances received from the customers are secured in the form of temporary call deposits with the bank, until such time it is used for the purpose. Interest earned is shown under other income.

## 4. Trade & other Receivables

Debtors and other recoverable are stated at the value estimated to be realized net of provisions for bad & doubtful receivables. Debts balances were discounted at 17% .Debts which are collected during 2013 are not considered as bad debts.

Debtor	Debtor Amount	Using Cost of capital 17% or 100%	Provision for Bad debts as at 31/12/2013
Ministry of Health	7,969,333.69	5,821,706.25	2,147,627.44
Pending Work Order	775,082.10	775,082.10	-
Mayor - Municipal Council, Negombo	2,128,637.16	1,554,998.29	573,638.87
Army Headquarters South Wing	1,112,694.45	812,838.37	299,856.08
Ministry of Technology & Research	271,760.15	198,524.47	73,235.68
Department of Agrarian Dev.	147,999.99	147,999.99	-
Unilever Sri Lanka Ltd	67,771.42	67,771.42	-
Teaching Hospital -Kurunegala	43,300.00	31,631.24	11,668.76
Uraban Council-Panadura	118,000.00	86,200.60	31,799.40
Lakliya Kantha Govi Sanvidanaya	39,450.00	28,818.76	10,631.24
Provincial General Hospital-Rathnapura	1,375,000.00	1,004,456.13	370,543.87
Wijaya Kumaratunga Hospital Seeduwa	182,720.00	133,479.44	49,240.56
Uraban Council-Ambalangoda	802,000.00	585,871.87	216,128.13
Uraban Council-Wattegama	290,000.00	211,848.93	78,151.07
National Science Foundation	84,000.00	61,363.14	22,636.86
Municipal Council - Negombo	35,128.58	25,661.90	9,466.68
A E Predeep , 'Sanjeeva Nivasa'	12,000.00	8,766.16	3,233.84
Hiriyala Economic Centre	637,056.40	-	637,056.40
Pelwatte Dairy Industries (Pvt) Ltd	371,152.65	-	371,152.65
Industrial Technology Institute	316,342.86	-	316,342.86
Pathadumbara Pradeshiya Saba	221,513.00	-	221,513.00
	17,000,942.45		5,443,923.38

## 5. Contingent Liabilities

5.1 HR Complaint by Mr. K.S.I Fernando, Motor Mechanic -Complain No.HRC/5072/2013.

5.2 Labour Complaint at Ja-Ela District Labour Office by Mr. KGN Rathnayake, former Asst. Director (Administration)

Rs 100,000.00 as contingent liabilities for legal provisions from 2013 allocation for the following legal matters (cases) Vs NERDC .

5.3 Construction of Museums Building

As the dispute between the Contractor ,Ms S P Muthaiah & Sons and NERDC are still under investigation at the technical committee appointed by the Ministry of Construction, Engineering Services, Housing & Common amenities we are not in a position to decide exact payment due to the contractor. However we can justify minimum balance payment due to the contractor to be not more than Rs 3m.

## 6. Incentive Payment Disbursement Amount

Board of Directors has approved the implementation of the FC 380 for NERD Centre, at the Board Meeting held on 21 st May 2013 .Board of Directors has approved the change in the method of disbursement as per FC 380 .Changes are as follows and other conditions remain same as year 2012 calculations.

Indirect project staff is the persons who contribute indirectly for the successful completion of the project and will be divided in to three sub categories as Management

- a) Departmental indirect
- b) Other indirect

DG, DDG(R&D) and DDG(S) are included as management and all the staff excluding clerks of the project executing department are considered as department indirect staff. Other indirect staff includes HR, Finance, Supply stores and TMD staff. Clerical staff of the Technical departments is considered as clerks of HR department or their own department based on the choice of the clerks concerned for the provision of this scheme.

### Table 1: Direct and Other Indirect Staff

- \* 1. Staff of the internal Audit section is considered as in Finance division .
2. Staff of the Library is considered as in HR Department.

Weighting Factors

#### Other Indirect

Supply/Stores staff	-	2
Non office staff of HR department	-	.75

#### Departmental Indirect

Directors/HOD	-	1.25
Others	-	1

Amount is calculated proportionally to weight factor and square root of the salary.

#### Management & Other Indirect

Amount is calculated proportionate to the salary, weight factor.

**7. Vehicle Accident during the year**

Vehicle No	Date of the Accident	Estimated Cost Rs.	Insurance Agent*	Received Date	Amount Received Rs.	Received by NERDC/Agent
301-3740	06-02-2013	16,800.00	NITF	23.04.2013	16,800.00	Sonalee Motore & Tinker Works
PD-8992	08-02-2013	104,949.60	SLIC	26/4/2013 R No 2013-0499	104,949.60	NERDC
NB-1631	23-02-2013	17,673.60	SLIC	28/10/2013 2013-1372	15,937.60	NERDC

In vehicle No NB-1631 ,claim Rs.2036 has been reduce by SLIC.

\*SLIC-Sri Lanka Insurance Corporation

NITF-National Insurance Trust Fund

**8. Revaluation of Assets**

Following asset were revalued

Asset	Cost Rs	Accu.Depr Rs.	WDV Rs	Re valued date	Revalued amount Rs	Gain/ Deficit	Team
Lorry 42-1966	1,460,538	732137.11	728,401.51	31/5/2013	1,500,000.00	771,598.49	A A S P Jayasinghe- Engineer H P Hemantha Kumarea- Engineer J M R Jayasinhe- Accountant
Water Flow Meter	2,083,950.00	1,659,928.94	424,021.06	31/12/2013	500,000.00	75,978.94	A A S P Jayasinghe- Engineer H P M G Pathiraja- Scientist J M R Jayasinhe- Accountant

Eng. D D Ananda Namal  
Director General

Eng. Anura Wijayapala  
Chairman