ACKNOWLEDGEMENT

The Management expresses and places on record its appreciation to the Ministry of Science, Technology & Research, Other Ministries, Foreign Governments and Funding Agencies for providing facilities and financial assistance to the Research and Development activities and other functions of the Centre. The Chairman and Board of Directors of the Centre thank all its staff members for the cooperation and assistance extended by them in the activities of the Centre.

Prashantha Vithanage
ACTG. CHAIRMAN

CONTENT

1

ACTS, LEGISLATIONS AND 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 Science, Technology and Research. NERDC is one of the premier institutes 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, Sri Lanka.

OFFICIAL ADDRESS

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

CONTACT INFORMATION

+ 94-011-2236284
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+ 94-011-2236307
+ 94-011-5354597

+ 94-011-2233153

nerdcentre@nerdc.lk

BANKERS

- Bank of Ceylon, Ja-Ela
- Bank of Ceylon, Corporate Branch

AUDITOR

Auditor General
Auditor General's Department

2

VISION
MISSION
OBJECTIVES

VISION

"To be a Centre of Excellence, in Engineering Research and Development in the South Asia Region"

MISSION

"Engage in Research and Development activities to develop, acquire, adapt and transfer Engineering Technologies that would have a direct impact on the Socio Economic Development of Sri Lanka, while creating a culture within the organization to harness innovation and creativity of employees and stakeholders"

PURPOSE

"To provide Engineering Intervention for Socio Economic Development in Sri Lanka"

Objectives

The National Engineering Research and Development Center of Sri Lanka was established on 14th August 1974 under the Sri Lanka State Industrial Corporation Act No. 49 of 1957.

As per the Act, the following purposes for which the industrial undertaking is constituted shall be;

1. To provide for the institutional mechanism needed for the progressive development of indigenous technology by encouraging, recognizing and developing innovative and creative talent in Sri Lanka.

2. 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.

3. To ensure by adoption and adaptation the choice of technologies that would be consistent with the country's resource endowments and national planning objectives.

4. 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.

5. To promote the optimal exploitation of the country's human and material resources, particularly labour and raw material resources by promoting the growth of suitable technology.

6. To design, manufacture, and test prototype machinery, pilot plants as demanded by Industrial, commercial and other end users in an economical manner.

7. 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.

8. 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.

9. To make provision for purpose connected with engineering, research and development related to matters aforesaid.

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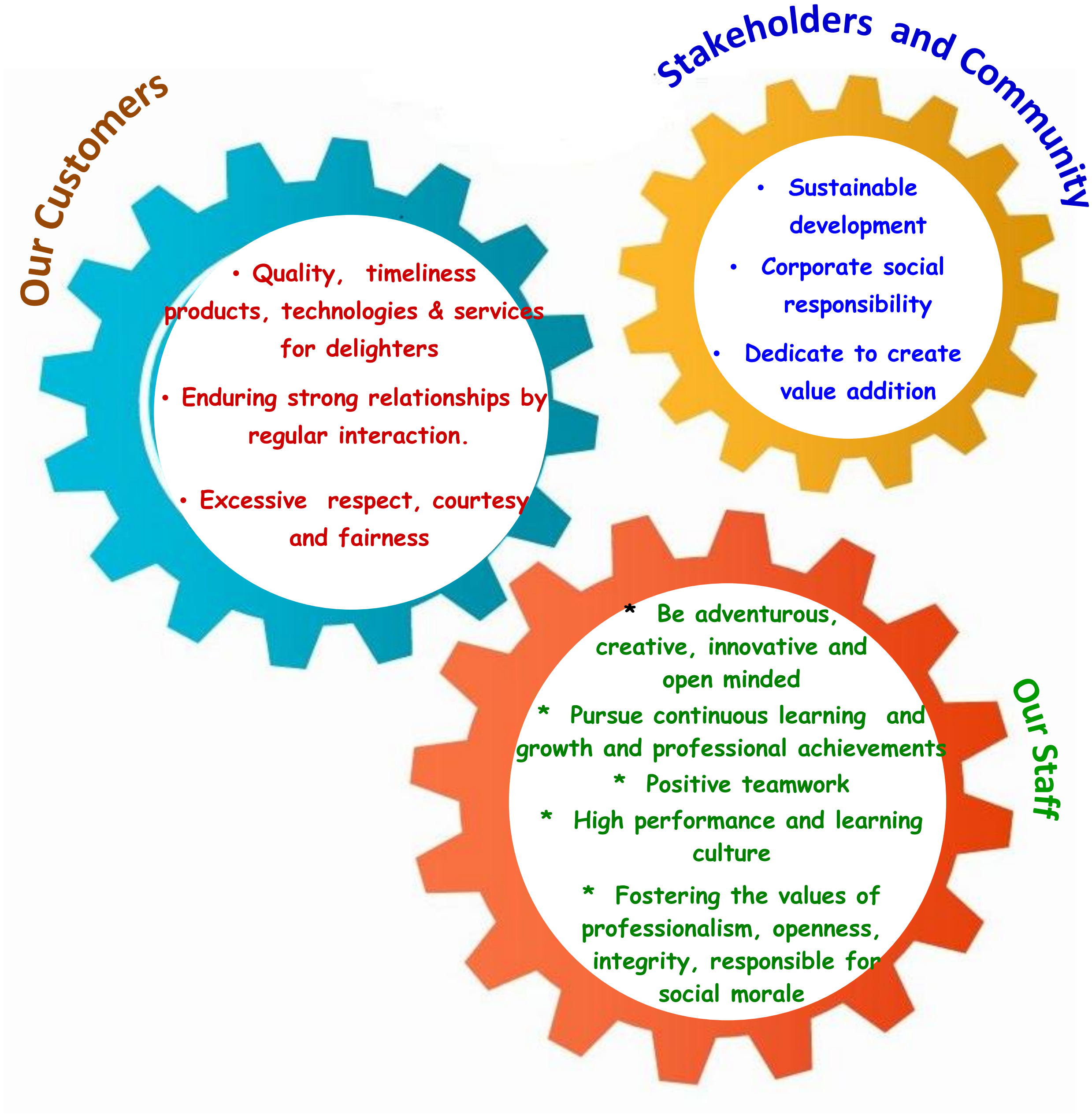
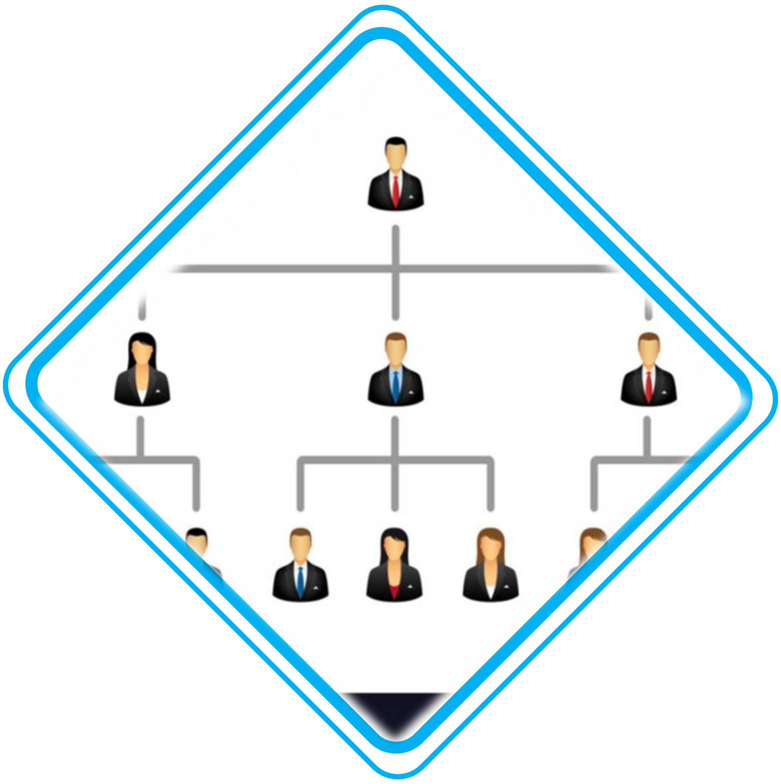
CORPORATE VALUES

We as NERDC team are dedicated to the delivery of quality products, technologies and services contributing to the wellbeing of our nation. We believe high ethical standards are essential to achievements of our individual and corporate goals. As such, a high performance culture designed to achieve excellence in Engineering Research and Development, the core values of NERDC commitment to our team, customers, other stakeholders and community are;


Our Customers
• Quality, timeliness products, technologies & services for delighters
• Enduring strong relationships by regular interaction.
• Excessive respect, courtesy and fairness
Stakeholders and Community
• Sustainable development
• Corporate social responsibility
• Dedicate to create value addition
Our Staff
* Be adventurous, creative, innovative and open minded
* Pursue continuous learning and growth and professional achievements
* Positive teamwork
* High performance and learning culture
* Fostering the values of professionalism, openness, integrity, responsible for social morale



4

BOARD OF DIRECTORS AND ORGANIZATION STRUCTURE

CHAIRMAN

Eng. C M Delpachithra (from 08.02.2019 to 17.09.2019)
B Sc (Eng), C.Eng., MIE(Z)

ACTG. CHAIRMAN

Mr. Prashantha Vithanage (from 17.09.2019 to 04.12.2019)
MBA

MEMBERS OF THE BOARD – 2019

1. Mr. Haja Mohideen Siddeek
   LL.B, Attorney- at-Law
   (from 08.02.2019)

2. Mr. S Suresh C Fernando
   (from 08.02.2019)

3. Mr. Prashantha Vithanage
   MBA
   (from 08.02.2019 to 16.09.2019)

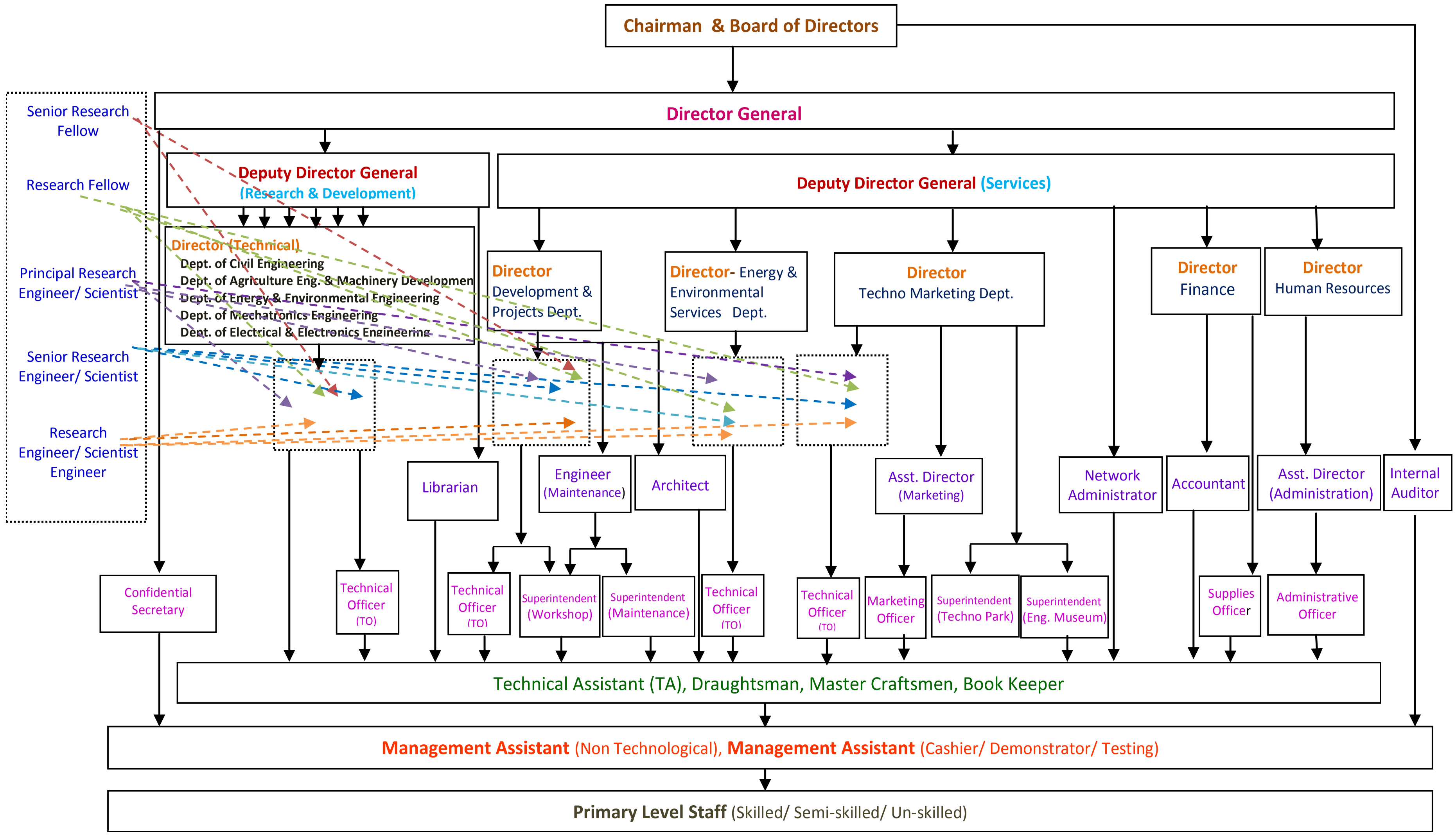
4. Mr. R De Livera
   (from 08.02.2019)

5. Mrs. Niluka Kumari
   Master of Business Studies, CBA
   (from 14.02.2019 to 02.09.2019)

6. Ms. Hemantha Pubudusiri
   (from 03.09.2019)

NATIONAL ENGINEERING RESEARCH & DEVELOPMENT CENTRE OF SRI LANKA

ORGANIZATION STRUCTURE



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CHAIRMAN'S MESSAGE

I am pleased to present the 2019 Annual Report of the National Engineering Research and Development Centre of Sri Lanka (NERDC), premier Engineering Research and Development organization in the country. Having purpose of providing Engineering Intervention for Socio Economic Development in Sri Lanka, the NERDC has been engaging in Research and Development (R&D) projects, Pilot projects, Commercial projects, Consultancy services, Technical services to the Industries, Technology popularization, Promoting Science and Technology education among students and community.

Output and outcome of the NERDC activities have contributed to the development of the country's economy matching the Government's development program in different key areas such as Energy and Environment, Shelter, Development of Small and Medium Scale Industries, etc. Accordingly I am pleased to state that the major projects involved by the Centre in 2019.

Representing the Agricultural and Plantation sector, NERDC has involved R&D projects of developing aquatic weeding machine to remove weeds in canals, developing vegetable dryer with the capacity of 50 kg and developing industrial coconut de-husking machineries.

More than 200 cremators countrywide have established based on the technology developed by the NERD Centre. In order to further enhancement of environmental performance of the NERDC developed cremator is a key project carried out during the year 2019. Standard Prototyping and Testing Facility Project was initiated in 2019 to facilitate industrialists to make improvements for their innovations using High Tech machinery and to establish required testing facilities to meet quality and standards. Focusing the Industrial sector several R&D projects like development of Automated Hopper Machine, development of Automated Yoghurt Filling Machine, development of Coir Braiding machine have been completed. Further, the Centre has continued the project of Automated Sample and Report Delivery Mechanism for hospitals and development of Smart car parking Monitoring System during the year 2019.

Livable house project was commenced in 2019 as a special project of the Ministry of Technology, Research & Innovation. NERDC has involved in commercial projects based on the technologies developed by the Centre and consultancy works in all aspects of main engineering disciplines in order to cater the demand from the industries in the country.

The NERDC has provided various technical services for both large and small industries based on their technical, energy and environment issues and special training programs have also been conducted for the industries in different Engineering disciplines throughout the year 2019.

To popularize the technologies developed and to transfer the technologies to suitable entrepreneurs countrywide, the Center has implemented various programs such as in house and outside training programs, awareness programs, and demonstration programs. As an annual event, two days Open day program at Technology Park, demonstration on different technologies were carried out for the general public in 2019. Research symposium for year 2019 was conducted at the NERDC auditorium with the participation of all NERDC Engineers.

When executing all the above functions, the leadership given by Eng. D D Ananda Namal, Director General of the Centre is most commendable and his continuous efforts to enhance the NERDC performance and corporate image are very much appreciated. I also wish to take this opportunity to thank the Board of Directors, Senior Management, Engineering and Technical staff and other supporting staff for their contribution and services to accomplish the organizational targets and goals.

PRASHANTHA VITHANAGE
ACTG. CHAIRMAN

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TOP MANAGEMENT AND EXECUTIVE STAFF

DIRECTOR GENERAL

Eng. D D Ananda Namal
M Eng. (Energy Technology), BSc Eng. (Hon), C Eng., MIE (SL)

DEPUTY DIRECTOR GENERAL (RESEARCH AND DEVELOPMENT)

Eng. G K K A De Silva (up to 02.06.2019)
MSc (Building Technology), BSc Eng. (Hon), C Eng., MIE (SL)

Eng. J A A D Jayasuriya (from 20.06.2019)
M Eng., BSc Eng., MIE(SL)

DEPUTY DIRECTOR GENERAL (SERVICES)

Mr. A H Piyasiri (up to 09.11.2019)
MSc (Management of Technology), BSc Eng. (Hons)

ENGINEERING AND EXECUTIVE STAFF IN DEPARTMENTWISE

Civil Engineering Department (CED)	Agriculture Engineering and Machine Development Department (AE&MD)
Director (Technical) Eng. J A C Chrishanthi M Eng., BSc Eng.,C Eng., MIE (SL)	**Director (Technical)** Eng. K Y H D Shantha MSc Eng., BSc Eng., AMIE(SL)
Principal Research Engineer Eng. W W P K Perera M Eng., BSc Eng. (Hons), C Eng., MIE (SL) **Research Engineer** Eng. I P Batuvita MEng, BSc Eng., AMIE(SL) Eng. A N S Amaradasa BSc Eng., AMIE(SL) Ms. H C Egodagamage (from 11.03.2019) BSc Eng., AMIE(SL) **Engineer** Ms. K S S Weerasinghe Special Apprentice (Civil Eng.), IESL (Part I)	**Principal Research Engineer** Mrs. Y M M K Ranathunga NDT Eng. A J G S Dahanayake BSc Eng., C Eng., MIE(SL) Dr. A P D Liyanage (from 09.09.2019) PhD, MSc, BSc **Principal Research Scientist** Dr. D M C C Gunathilake (from 16.12.2019) PhD, MSc, BSc **Senior Research Engineer** Eng. P M Y S Pathiraja MSc, BSc Eng., AMIE (SL) Eng. S A P Shalinda Silva BSc Eng., M Eng., C Eng., MIE (SL) Dr. T N Fernando (from 02.09.2019) PhD, B.Tech, AMIE (SL) **Research Engineer** Eng. K Sivesudhan BSc Eng., AMIE (SL)

Energy and Environmental Engineering Department (ENED)	Electrical and Electronic Engineering Department (ELED)
Research Fellow/ Head of Department Eng. J A A D Jayasuriya (up to 19.06.2019) M Eng., BSc Eng., MIE(SL)	**Research Fellow/ Head of Department** Eng.(Ms.) N G D Wijesiriwardhana M Eng., C Eng., MIE (SL)
Research Fellow Eng. W K R Peiris MA (Buddhist Stud), BSc Eng., C.Eng. MIE(SL) Eng. E A N K Edirisinghe MPhil, BSc Eng., MIE (SL) **Principal Research Engineer** Eng. H M L U Herath BSc Eng., AMIE(SL) **Research Engineer** Eng. P F S Perera BSc Eng., M Eng., AMIE(SL) Eng. S M V P D Senanayake (from 10.04.2019) BSc Eng., AMIE(SL) **Engineer** Mr. W A L S Karunawardhana HNDE	**Principal Research Engineer** Eng. U C Botheju (from 02.09.2019) BSc Eng. C Eng., MIE (SL) **Senior Research Engineer** Mr. D A M S K Hemasiri (from 02.09.2019) MSc. BSc Eng. **Research Engineer** Eng. (Ms) D R S K Wimalaratne B Tech. (Hon), AMIE(SL) Eng. Y S P Weerasinghe B Tech. AMIE (SL) Eng. H K I S Lakmal BSc Eng., AMIE(SL)

Mechatronics Engineering Department (MED)

Director (Technical)
Eng. D M Punchibanda
BSc Eng., AMIE(SL)

Principal Research Engineer
Eng. H P H Kumara (from 02.09.2019)
MSc Eng., EC(UK) PART I & II, AMIE(SL)

Principal Research Scientist (from 01.10.2019)
Dr. T A Suranga Anuruddha
PhD, MSc. BSc(IT)

Senior Research Engineer
Mr. N S K Samarasinghe (from 22.03.2019)
M Sc, BSc Eng., AMIE (SL)

Research Engineer
Eng. S M S S Senaratne
MSc Eng.,B Tech, AMIS(SL)

Eng. W M S P K Wanasinghe
B Tech., AMIE (SL)

Eng. M A T M Kumara
Sc Eng., AMIE (SL)

Eng. J D M H Jayantha
BSc Eng., AMIE (SL)

Energy and Environmental Services Department (E&ESD)

Research Fellow/ Head of Department
Eng. K T Jayasinghe
M Eng., BSc Eng., C Eng., MIE(SL)

Senior Research Engineer
Eng. (Ms.) N P T Perera
MSc, BSc Eng.(Hons.), AMIE(SL)

Eng. (Ms.) A G M T Siriwardhana
MSc, M Eng., BSc Eng., AMIE(SL)

Dr. S M Pathirana (from 09.09.2019)
PhD, MSc, BSc, AMIESL

Research Engineer
Eng. M D Sahardeen
BSc Eng., AMIE(SL)

Eng. K P D D Jayasekera
BSc Eng.(Hons), AMIE(SL)

Eng. (Ms) G S R Costha
MEng, BSc Eng., AMIE (SL)

Eng. H A K Hapuarachchi
BSc Eng., AMIE(SL)

Engineer
Ms. H D C Hettiarachchi
NDT

Development and Project Department (DPD)

Director (Technical)
Eng. K L Meedeniya
MSc Eng., BSc Eng., MIE(SL)

Principal Research Engineer
Mr. W P R D Weerasinghe
NDT, CEI PART I, IESL Part I

Eng. S D S P Solangaarachchi (from 11.09.2019)
MSc, BSc

Senior Research Engineer
Eng. D M Eknaligoda (from 01.03.2019)
BSc, AMIESL

Eng. M A D S Premadasa (from 03.05.2019)
MBA, BSc, AMIESL

Senior Research Scientist (Architecture)
Ms. B D R Chamika
MSc, BSc. Chartered Architect AIA (SL)

Research Engineer
Eng. T K Geeganage
BSc Eng., AMIE (SL)

Engineer
Ms. D M A K Digala
Special Apprentice (Civil Eng.), IESL(Part 1)

Mr. P A U W K Paranagampola
NDES

Techno Marketing Department (TMD)

Director -Technical
Eng. A A S P Jayasinghe
BSc Eng.(Hons), MBA, C Eng., MIE(SL)

Research Scientist
Ms. B D P S Ranaweera
BSc

Research Engineer
Eng. J K I P Jayasiri (from 10.06.2019)
BSc Eng., AMIE(SL)

Asst. Director – Marketing
Ms. P N D Pathirana
BSc (Hons) Sp. MCIM (UK), MSLIM (SL)

Technology Incubator

Principal Research Engineer / OIC- Technology Incubator
Eng. A R C Salgado
BSc Eng., AMIE(SL)

Research Engineer
Eng. Suresh P Perea
C Eng. MMechE (UK), NDT, AMIE (SL)

Maintenance Unit and Central Workshop	Technology Park and Engineering Museum
Engineer Mr. N A D D J Prasanna NDT	**Superintendent – Technology Park** Mr. W K C P Walpola (from to 01.07.2019) BSc **Superintendent – Engineering Museum** Ms. D K Jayaweera BSc (Hons)
Human Resources Department (HRD)	**Finance Department (FD)**
Director (Human Resources) Ms. D A M Munasinghe MBA (HRM), BSc (HRM), AM (CIPM)	**Director (Finance)** Ms. D V S Perera ICMA Professional Part II, IPFA, ICEA
Assistant Director (Administration) Mr. R Gamage MA in Sociology, MLRHRM, BA (Social Sc.) Sp.	**Accountant** Mr. J M R S Jayasinghe MBA, BBA Sp. , CPFA, ICASL – Prof. Part I
Information Technology Unit	
Network Administrator Mr. B P Wickramasooriya MSc, BSc (Computing & Information Systems)	**Librarian** Ms. D M T P K Devagiri MSc , B A (Library Science) Sp., ASLLA
Internal Audit Unit	**Procurement Unit**
Internal Auditor Mr. B P S Kumara MPM, HNDA	**Supplies Officer** Mr. R H A Jeewananda BSc (Physical Science)

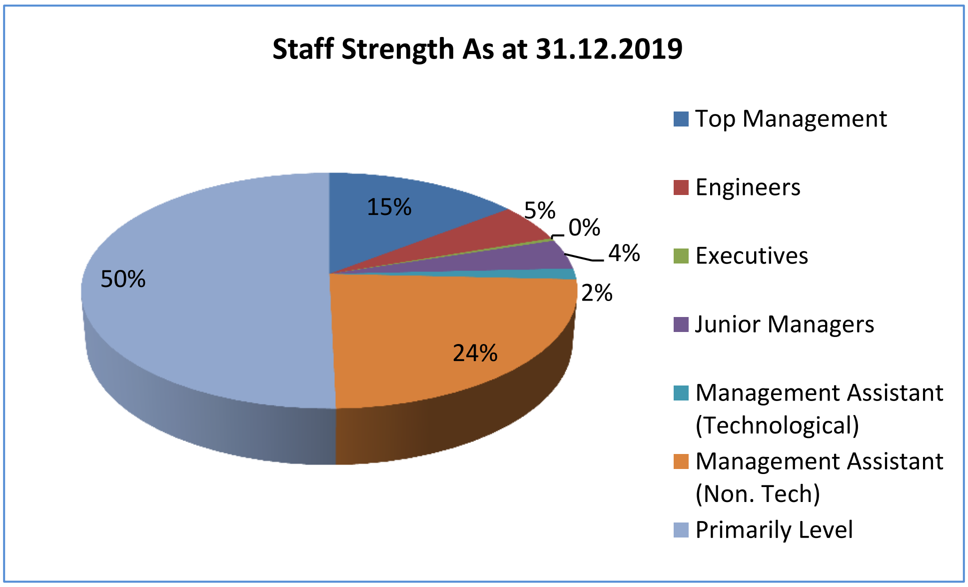
7

HUMAN RESOURCES MANAGEMENT

In accomplishing the goals and objectives of an institute, human resource is the significant asset mostly. When it becomes a research institution, it is the key factor. The success of all tasks of the Centre, i.e. conducting research and development projects, commercial projects, training programmes and providing industrial services, etc. are totally based on the knowledge, skills, attitudes of the staff at each and every service category.

Summary Information on Staff Strength - As at 31.12.2019

SERVICE CATEGORY	APPROVED CADRE	ACTUAL CADRE
Top Management	3	2
Engineers/ Scientists	68	59
Other Executives	10	9
Junior Managers	14	10
Management Assistants (Technical)	25	23
Management Assistants (Non - Technical)	52	52
Primary (Skilled)	104	100
Primary (Semi-Skilled)	3	0
Primary (Un Skilled)	65	41
TOTAL	**344**	**296**



7.1 Cadre Management

7.1.1 Recruitment (External) in year 2019

	Name	Designation		Name	Designation
1	Mr. G D Sandakelum	Machinist	21	Mr. K L Sandeepa Perera	Labourer
2	Mr. H L R L Sampath	Machinist	22	Mr. N R V Jayawickrama	Labourer
3	Mr. K A S S Weerasinghe	Electrician	23	Mr. I T Madurangana Silva	Labourer
4	Mr. D M Eknaligoda	Senior Research Engineer	24	Mr. I L Vidushan Ravisara	Office Aide
5	Ms. T P R R Somaratne	Superintendent (Maintenance)	25	Mr. A Chamidu Pathum	Labourer
6	Mr. W W Kaluarachchi	TA (Electrical)	26	Mr. N P N Prabudda	Labourer
7	Mr. W K D Sampath	TA (Civil)	27	Mr. H D B Roshan	Labourer
8	Ms. H C Egodagamage	Research Engineer	28	Mr. J P S Tharindu	Office Aide
9	Mr. W T Chathuranga	TA (Civil)	29	Mr. H M I Madusanka	Labourer
10	Mr. N S K Samarasinghe	Senior Research Engineer	30	Mr. U D D S Sampath	Labourer
11	Mr. K L Meedeniya	Director (Technical)	31	Mr. M S Devapura	Senior Research Eng.
12	Mr. S M V P D Senanayake	Research Engineer	32	Mr. D M P Gunawardane	Marketing Officer
13	Mr. J M U Gayan	Research Engineer	33	Dr.(Ms) T N Fernando	Senior Research Eng.
14	Mr. M A D S Premadasa	Senior Research Engineer	34	Dr. A P D Liyanage	Principal Research Eng.
15	Mr. P P H U Kumarasiri	Driver	35	Dr. S M Pathirana	Senior Research Eng.
16	Ms. J K I Prasanthi Jayasiri	Research Engineer	36	Mr. S D S P Solangaarachchi	Principal Research Eng.
17	Mr. W K C P Walpola	Suprintendant (T Park)	37	Mr. H W G R Hettigewatta	Office Aide
18	Ms. A T D Rodrigo	Book Keeper	38	Dr. T A Suranga Anuruddha	Principal Research Scientist
19	Mr. L K Tharindu Indunil	Labourer	39	Dr. D M C C Gunathilake	Principal Research Scientist
20	Mr. W I Kavinda	Labourer			

7.1.2 Retirement and Resignations in year 2019

Retirements			Resignations		
	Name	Designation		Name	Designation
1	Mr. L Sirineel Fernando	Welder/Fitter	1	Mr. M M M Manas	Research Eng.
2	Mr. K R Premasiri	Driver	2	Mr. Sanjaya Niroshana	Tool keeper
3	Eng. G K K A De Silva	DDG (R&D)	3	Mr. H U S Bandara	Driver
4	Ms. H A N Padmini	Admin.Officer	4	Mr. E A P Chathuranga	Machinist
5	Mr. W S P Perera	Labourer	5	Ms. W M N L U Chandrasena	Tech. Asst. (Mechanical)
6	Mr. A H Piyasiri	DDG (Services)	6	Mr. J M U Gayan	Research Eng.
			7	Mr. P M D Sandaruwan	Marketing Officer
7	Mr. A D A R Premawansa	Technical Officer	8	Mr. U S Warnakula	Superintendent - Workshop
			9	Mr. B Dammith Priyanka	Office Aide

7.2 Career Development

7.2.1 Internal Promotions

No	Name	Previous Post	Promoted Post
1	Eng. J A A D Jayasuriya	Research Fellow	Deputy Director General (R&D)
2	Eng. H P Hemantha Kumara	Senior Research Engineer	Principal Research Engineer
3	Eng. U C Botheju	Senior Research Engineer	Principal Research Engineer
4	Mr. W A R M Perera	Welder/Fitter	Welder

7.2.2 Internal Grade Promotions

No	Service Category	Promoted Grade	Nos. Promoted
1	Management Assistant (Tech)	Grade III to II	01
2	Management Assistant (Non Tech)	Grade II to I	07
3	Primary Level (Skilled)	Grade III to II	06
4	Primary Level (Un Skilled)	Grade III to II	01

7.2.3 Efficiency Bar (EB) Examination Completion

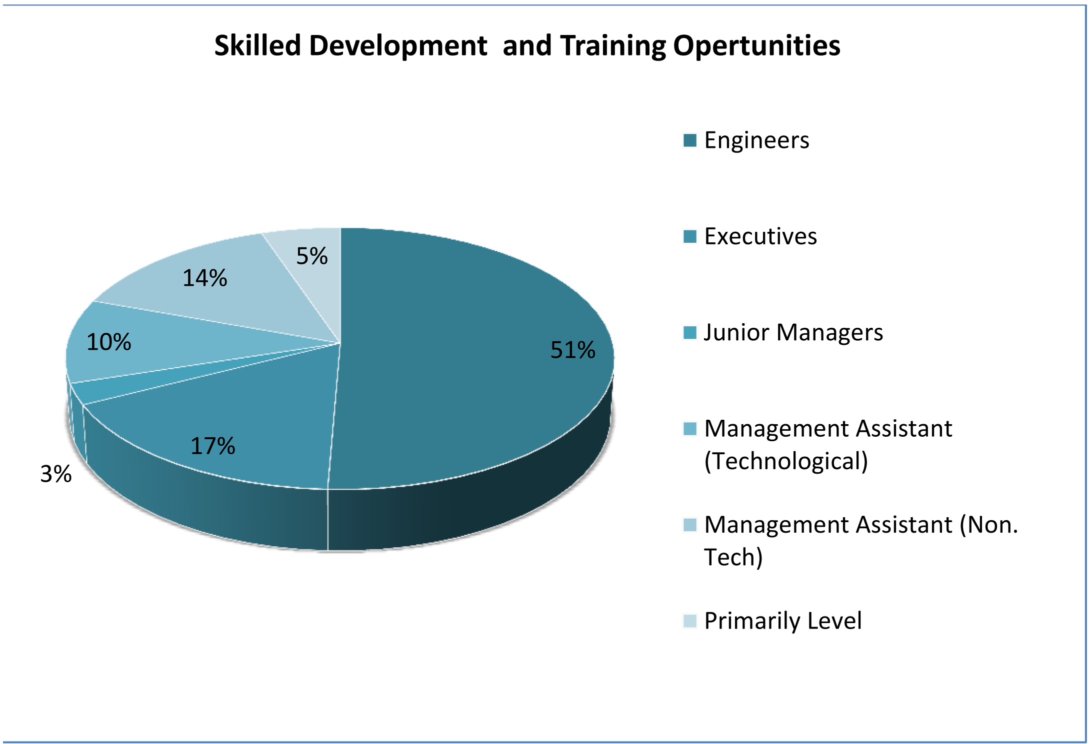
No	Service Category	EB Examination	No. of Appeared	No. of Completed
1	Academic & Research (AR 1)	1st EB Examination	05	05
3	Junior Manager (JM 1-2)	1st EB Examination	04	03
4	nagement Assistant – Tech (MA 2-2)	1st EB Examination	06	03
5	Management Assistant – Non Tech (MA 1-2)	2nd EB Examination	04	04

7.3 Training and Continuous Professional Development

Since the fundamental responsibility of the NERDC is execution of engineering researches and developments, where, constant concern is tendered in developing human resources capacity in the Centre. Accordingly, all steps are taken by the Management to enhance knowledge, skills and competencies with correct attitudes in all categories of the staff having purposes of obtaining efficient and effective service to the Centre and career development of the staff.

7.3.1 Capacity building and skills development training opportunities provided in year 2019 are as follows;

Service Category	Training Opportunities
Engineers	39
Executives	13
Junior Managers	2
Management Assistant (Technological)	8
Management Assistant (Non. Tech)	11
Primarily Level	4
Total	**77**



7.3.2 Higher Studies facilitations

No	Name	Designation	Program	Institution
Higher Studies started in 2019				
No	**Name**	**Designation**	**Program**	**Institution**
1	Eng. I D M H Jayantha	Research Engineer	M Sc./PG Diploma Course in Electrical Installation	University of Moratuwa
Higher Studies ongoing in 2019				
No	**Name**	**Designation**	**Program**	**Institution**
1	Ms. B D P S Ranaweera	Research Scientist	M Sc. Degree Programme in Industrial and Environmental Chemistry 2016/18	University of Kelaniya
2	Mr. K P D D Jayasekera	Research Engineer	M Eng./PG Diploma in Environmental Eng. & Mgt.	University of Moratuwa
3	Mr. T K Geeganage	Research Engineer	M Sc./PG Diploma Course in Sustainable Process Eng.	University of Moratuwa
4	Eng. (Ms) A G M T Siriwardhane	Senior Res. Engineer	PhD Studies of Engineering and Computer Sciences	Australian National University
5	Eng. Y S P Weerasinghe	Research Engineer	M Sc Eng (Communication and Information Eng.)	University of Peradeniya
6	Eng. U C Botheju	Principal Res. Engineer	M Sc Eng (Control & Instrumentation)	University of Peradeniya
Higher Studies completed in 2019				
No	**Name**	**Designation**	**Program**	**Institution**
1	Mr. I P Batuvita	Research Engineer	M Eng. in Highway &Traffic Engineering	University of Moratuwa
2	Ms. G S R Costa	Research Engineer	M Eng. in Energy Technology	University of Moratuwa
3	Mr. B P Wickramasuriya	Network Administrator	MSc. in Information Technology.	University of Colombo

7.3.3 Participation for Foreign Training / Workshop / Seminars / Symposiums

	Name & Designation	Programme Participated	Country	Period
1	Mrs. P N D Pathirana Asst. Director (Marketing)	International Training Workshop on ' Technopreneurship for Developing Countries" in Kuala Lumpur, Malaysia	Malaysia	11.03.2019 - 15.03.2019
2	Eng. D M Punchibanda Director (Technical)	Senior Management Programme On Managing Research Technology Organizations (Rtos)	Malaysia	28.04.2019- 05.05.2019
3	Eng. MA T M Kumara Research Engineer	WAITRO-SIRIM Capacity Building Workshop on IOT technology application for smart farming	Malaysia	28.04.2019- 05.05.2019
4	Eng. T K Geeganage Research Engineer	Solar Thermal Technology for Industrial Application	Malaysia	28.04.2019- 05.05.2019

5	Eng. S A P S Silva Senior Research Engineer	Capacity Building Programme- w/s for Commercialization of Research and Innovation	Malaysia	28.04.2019-05.05.2019
6	Mr. W A L S Karunawardena Engineer	Training on Advanced Bio Gas Technology for the Belt and Road Developing Country	China	02.06.2019-21.06.2019
7	Eng. J A A D Jayasuriya DDG (R&D)	Regional Workshop on New Paradigm in Technology Transfer and Commercialization	India	08.07.2019-10.07.2019
8	Eng. J A A D Jayasuriya DDG (R&D)	4th Meeting of the Indo-Sri Lanka Joint Committee on Science and Technology	India	13.08.2019-14.08.2019
9	Eng. S A P S Silva Senior Research Engineer	Training Course on Technology of Agricultural Machinery and Water saving Irrigation for Sri Lanka	China	22.08.2019-20.09.2019
10	Eng. H A K Hapuarachchi Research Engineer	Training Course on Technology of Agricultural Machinery and Water saving Irrigation for Sri Lanka	China	22.08.2019-20.09.2019
11	Mr. J M H U Bandara Technical Assistant	Training Course on Technology of Agricultural Machinery and Water saving Irrigation for Sri Lanka	China	22.08.2019-20.09.2019
12	Eng. P M Y S Pathiraja Senior Research Engineer	2019 KISTEP-ISTIC S&T INNOVATION TRAINING PROGRAM FOR HIGH LEVEL POLICY MAKERS - "S&T P.I.E Framework Focusing on Foresight and Evaluating"	South Korea	29.10.2019-01.11.2019
13	Eng. J A A D Jayasuriya DDG (R&D)	The 15th Session of the Governing Council of the Asian and Pacific Centre for Transfer of Technology (APCTT)", International Conference on Emerging Technologies for Achieving Sustainable Development Goals"	Malaysia	05.11.2019-07.11.2019
14	Mr. W P R D Weerasinghe Principal Research Engineer	the National Convention of Ferro-cement Society, India	India	06.11.2019-11.11.2019

7.3.4 Outbound Training Program organized

Two (02) days Residential Outbound Training Program was conducted at Technology Park for newly recruited employees on 09th and 10th May 2019. Twenty five staff members participated for the above programme.

7.4 Industrial/ Technical Training Facilities provided for Apprentices / Under Graduates

NERDC has provided in plant training opportunities for 61 nos. of apprentice/ trainees who were directed by National Universities and Technical Institutions for in plant training period of 03 months/ 06 months/ 01 year within the year 2019.

8

PERFORMANCE HIGHLIGHTS OF THE YEAR 2019

The National Engineering Research and Development Centre comprises with five departments carrying out Research and Development (R&D) activities and three departments involved in providing technical services, apart from other two departments engaged in Financial and Human Recourses Management.

Technical Departments carry out R&D activities in the fields of Civil Engineering, Electrical and Electronics, Mechatronics, Energy and Environmental Engineering and Agriculture and Machine Development. Techno Marketing Department is responsible for taking the NERDC developed technologies in to the society. Energy and Environmental Services Department provides technical and technological services mainly to the industry on commercial basis and Department of Projects implements NERDC developed technologies such as cost effective buildings, NERDC developed crematoria etc. on commercial basis.

Key projects undertaken, in 2019, for each category of R & D, Technical Services and Commercial projects are highlighted as below;

8.1 Key Research and Development Highlights

Enhancement of environmental performance by upgrading NERDC Developed Cremator

NERDC, introduced the single chamber cremator to Sri Lanka in 1990s and the technology was disseminated throughout the country. During the period up to date around 200 crematoria were installed in the country. In the meantime, the environmental regulations have been becoming more stringent with regards to standards for emissions as well as on safety aspects.

This project intended to provide a more environmentally friendly cremator complying with international standards and to upgrade the cremator technology to fit it in urban areas without affecting the neighborhoods health.

The first of this kind of cremators was constructed at Malkaduwawa, Kurunegala as a collaborative research project with Kurunegala Municipal Council. Several cremations were done on testing basis at the end of year 2019. The project is to be commissioned in January 2020.

Development of Aquatic Weeding Machine to remove weeds in canals

The project was initiated to clean up canals which are blocked by excessive growth of aquatic weeds. Several crude models were tried out doing modifications after each trial and finally the model was succeeded. At this stage better model is being fabricated with enhanced user friendliness and versatility.

Automated Sample and Report Delivery Mechanism for hospitals

This project was requested from National Hospital, Colombo, where more than 200 workers are being used to take medical samples and laboratory reports between wards and laboratories. The objective of the project is to send samples and reports using the control panel to the required location.

The sample/ report are processed via a tubing system using the pneumatic power. The basic technology was developed with the required components and indoor testing was successfully carried out at NERDC. Next step is to apply the developed technology to real application at the National Hospital.

Standard Prototyping and Testing Facility Project

The project was initiated to facilitate industrialists to make improvements for their innovations using High Tech machinery and to establish required testing facilities to meet quality standards. During the 1st phase of the project the most important machinery were identified by discussions and meetings with the leading industrialists.

Specifications of those were identified and purchasing orders were placed to procure machinery worth 32.5 Million LKR, at the end of 2019.

Development of 50kg capacity Vegetable Dryer

Having purpose of developing a tray dryer, which includes uniformity drying process within all the trays, it was intended to overcome the issue of uneven drying of trays requiring constant attention and interchanging of trays. Also this issue affects the final quality of the products.

The dryer was fabricated and tested and ensured that the issue of uneven drying can be overcome. This would help to acquire a better quality products with minimal attention about the process.

Minor modifications are being done to increase the fuel efficiency. 90% of the project has been completed.

Development of Smart Car Parking Monitoring System

Smart parking monitoring system helps the public by directing them to car parks where there are vacant spaces; reducing time wasted searching or queuing at car park entrances. This in turn reduces congestion on the road network near the car parks, benefiting other traffic also. According to the smart concept, this will help to develop smart cities in our country. The system was completed and its performance is being monitored at pilot scale

Livable house at affordable cost

1500sqft, livable house project was commenced at the end of year 2019 as a special project of Ministry of Technology, Research and Innovation. The design of the cost effective house was done and basic structure was completed. The overall completion is scheduled in February 2020.

Development of Automated Hopper Machine

This machine operated with LP gas and it has 12 pans. Production capacity of the machine is 260 hoppers an hour. This has automatic operations with one operator. Technology development is completed.

Development of Automated Yoghurt Filling Machine

Yoghurt filling machine with the capacity of 400 cups per hour was developed. It measures the quantity precisely, pours into the cups and seal the lid automatically.

Industrial coconut De-husking Machine

Industrial type coconut de-husking machine was developed and called for Technology Transfer. The capacity of twin de-husker machine is 1200 nuts per hour. The cost for de-husking one nut is Rs. 0.80 against that involved with manual labor cost is Rs. 2.50.

Development of Rotary Compost Bin for disposal of domestic perishable waste

A compost bin has been developed to make the composting process quicker. Waste plastic barrels are used for the bin with the fixture and attachments making it rotatable manually. Manual rotation about 2-3 rounds daily, facilitates for mixing, making composting process faster. Trails showed that compost is matured in 30 days.

Two sets of compost units are needed, so that one is charged with household perishable waste for 15 days and during next 15 days it is not charged but rotated for a few rounds daily. When the first unit is not charged 2nd unit is used for charging ensuring the disposal of about 1-1.5kg of garbage every day. Field testing of the project is in progress.

Development of Coir Braiding Machine

The project is to develop a machine to make coir braid used for coir mats, instead of existing labour intensive method. Process of coir braiding consumes 60% of labour required for the entire process. Coir mat production industry in Sri Lanka is required more labor whose income is very low compared to labor income from other industries.

Coir mats are exported to other countries and in order to improve the both quality and productivity of the industry, the NERDC developed the coir braiding machine replacing the labour requirements for braiding. Field level testing is in progress.

8.2 Technical Services done by Energy and Environment Service Department (E&ESD)

In 2019, E&ESD has targeted to earn LKR 45.690 Million income through the commercial projects and activities, since the department has directly involved in commercial services. In addition to the commercial task, E&ESD has planned to obtain ISO 17025-laboratory accreditation to the lamp testing and refrigerator testing laboratories by focusing to improve the standard laboratory services. In the meantime, Department updated and maintained ISO 17025 -laboratory accreditations, which have been received in 2016 for mechanical and wastewater testing and Refrigerator Testing Laboratory. Further, in 2019 it was able to obtain ISO 17025 -laboratory accreditation for Lamp Testing Laboratory first time. E&ESD has also published three numbers of newsletters in order to popularize and share the knowledge among the different sectors.

Services to industries is the main commercial activity involved in the Department and the under mentioned category of services are provided to different industries as per their request.

- Boiler analysis, tuning and efficiency tests
- Industrial process monitoring services
- Noise and air quality control system designs
- Emission control system designs
- Noise and air quality monitoring services based on the standards
- Stationary sources emission monitoring services based on the standards
- Indoor air quality monitoring based on the OSHA standard.
- Wastewater sample testing and analysis
- Wastewater treatment plants

Summary of Technical Services done by E & ESD to the Industries

Project/Activity	No. of Services Provided	Income generated (Rs. 000’)	Contribution (Rs. 000’)
Services to Industry	501	19,120	14,688
Laboratory Testing for Industries	241	1,885	819
Construction of water treatment plants to industries	75	10,516	3,874
Total	**817**	**31,521**	**19,321**

8.3 Construction and Fabrication work done by Department of Projects and Development (DPD)

DPD undertakes jobs related with dissemination of NERDC developed technologies. Summary of commercial undertakings of NERDC developed technologies are as follows;

Project /Activity	Physical No. of projects/ activity	Income Generated (Rs. '000)
Provide Civil engineering consultancy service	11	3,098
Construction of Cost effective building and structures	6	27,015
Sells of Pre-cast and pre-stressed concrete items	29	2,793
Manufacture and supply of products, construction, fabrication, installation, repair and improvements of plants	53	7,438

Highlights of construction work done by Department of Project and Development

- **Construction of Low Cost Lecture hall for Institute of Indigenous medicine (IIM), University of Colombo, Rajagiriya**

With the objective of increasing university students' lecture hall capacity in the university, the Institute of Indigenous medicine (IIM) of University of Colombo awarded the project of design and construction of a semi-permanent lecture hall at the university premises with 252 seating capacity, to NERDC. The total floor area of the building is 195 $m^2$and the value of the project was Rs. 17,038,775.51. Total duration of the project was 180 days.

- **Consultancy Services for construction of Medical Office building at Wadduwa**

The scope of this project is to provide consultancy services for construction of Medical Office Building at Wadduwa. The three storied building includes OPD, Antenatal Clinic, Arunodaya Child's Development Unit, Medical Officer's Office, Dental Clinic and an Auditorium. The total floor is 1440m^2. The building will be located in a flat land with 600mm floor rise from the existing ground level.

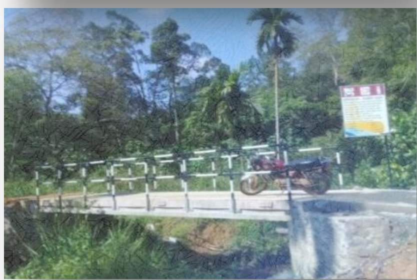
The cost effective construction technologies developed by NERDC such as precast concrete columns, slabs and soil block walls are used in this building project.

Construction of pre-stressed concrete foot bridge at Indivitiya in Ja-Ela

This projects was initiated as a result of request made by the divisional secretariat, Ja-Ela and cost effective small bridge construction technology introduced by NERDC is used to construct the bridge. The selected site for pre-stressed concrete foot bridge was located at Indivitiya in Ja-Ela Divisional Secretariat area in Gampaha District.

The pre-stressed concrete beams were manufactured at the pre-stressing bed at NERDC and the bridge deck was constructed using direct labor of NERDC. The special feature of this foot bridge is intermediate support constructed at the Centre of the canal.

Construction of pre-stressed concrete foot bridge at ilukpotha, palindanuwara



This projects was requested by the International Union for Conservation of Nature (IUCN) and cost effective small bridge construction technology introduced by NERDC is used to construct the bridge. The selected site for pre-stressed concrete foot bridge was constructed across “Heenpandala Ela” in Ilukpotha villagein Palindanuwara Divisional Secretariat area in Kaluthara District.

The pre-stressed concrete beams were manufactured at the pre-stressing bed at NERDC and the bridge deck was constructed using direct labor of NERDC. The abutment wall of this foot bridge is constructed by the masons from the area with the community participation.

Construction of pre-stressed concrete foot bridge at Pathiragoda road, Rathmalana

This projects was initiated as a result of request made by the Divisional Secretariat, Rathmalana and cost effective small bridge construction technology introduced by NERDC is used to construct the bridge. The selected site for pre-stressed concrete foot bridge was located at Pathiragoda road, Aththidiya Rathmalana Divisional Secretariat area in Colombo District.

The pre-stressed concrete beams were manufactured at the pre-stressing bed at NERDC and the bridge deck was constructed using direct labor of NERDC.

8.4 Activities related to Technology Transfer/ Promotion by Techno Marketing Department (TMD)

The function of TMD is to taking the technologies developed into the society. Technology Park and Engineering Museum of NERDC also are functioned under this Department.

Techno Marketing Department has carried out following activities during 2019.

Activity	No.
Issuance of license for developed technologies	28
Renewal of existing licensees	69
Carrying out training programmes on developed technologies	07
Attending exhibitions and trade fairs	10
Carrying out awareness programmes	06
Radio/ TV programmes	05
News paper and Magazine articles	06
Filing patents	03
Forums for Small and Medium scale Enterprises	01

- **Work done by Technology Incubator**

23 Small and Medium scale Enterprises were supported with precision machining, 3D printing and machining of moulds.

Seven inventors were supported, including school children. Also 03 projects related with Mechatronics Department were assisted with incubator facilities

- **Shilpasena Expositions -** BMICH, Colombo

Inaugural Shilpasena exhibition was held at BMICH (from 17th July to 21st July 2019), Colombo, which was inaugurated by then Pri-Minister Hon. Ranil Wickramasinghe The theme of this exposition was Mechatronics. Department of Mechatronics handled the main responsibility in arranging and demonstrating the exhibits.

- **Shilpasena Expositions -** Polonnaruwa

Second exposition was held in Polonnaruwa from 24th Sep. to 29th Sep. 2019 and NERDC arranged an exhibition stall on Ancient Technologies, which was a focal point of that Shilpasena exposition. Department of Energy and Environment Engineering took the lead part of NERDC in this exhibition

9

AWARDS AND ACHIEVEMENTS IN 2019

Association of Public Finance Accountants of Sri Lanka (APFASL), The public sector wing of CA Sri Lanka presented **1st Runner up award for Best Annual Reports and Accounts – 2017** in the Public Sector (Research Institutions) on 25th October 2019

NERDC was awarded **Special Commendation in the service Sector-Large Scale category at the National Productivity Awards 2018** conducted by the National Productivity Secretariat, Ministry of Public Administration and Disaster Management on 26 March 2019.

Certificate of Accreditation

Sri Lanka Accreditation Board for Conformity Assessment
hereby declares that

Refrigerator Testing Laboratory
Energy & Environmental Services Department
National Engineering Research & Development Centre

having being found to comply with the accreditation criteria for testing/calibration laboratories as described in ISO / IEC 17025 :2005, has been accredited as a testing laboratory under the field of

ELECTRICAL TESTING

and has been assigned the accreditation number
TL 060-02

This certificate is issued on 30 October 2019 and is valid until

30 November 2020

The accreditation was granted for the first time on 30 October 2019

The scope and conditions of accreditation are specified in the Schedule of Accreditation bearing the accreditation number appearing in this certificate.

Director / CEO
Sri Lanka Accreditation Board for Conformity Assessment
Colombo, Sri Lanka

Certificate of Accreditation

Sri Lanka Accreditation Board for Conformity Assessment
hereby declares that

Lamp Testing Laboratory
Energy & Environmental Services Department
National Engineering Research & Development Centre

having being found to comply with the accreditation criteria for testing/calibration laboratories as described in ISO / IEC 17025 :2005, has been accredited as a testing laboratory under the field of

ELECTRICAL TESTING

and has been assigned the accreditation number
TL 060-03

This certificate is issued on 30 October 2019 and is valid until

30 November 2020

The accreditation was granted for the first time on 30 October 2019

The scope and conditions of accreditation are specified in the Schedule of Accreditation bearing the accreditation number appearing in this certificate.

Director / CEO
Sri Lanka Accreditation Board for Conformity Assessment
Colombo, Sri Lanka

Sri Lanka Accreditation Board for Conformity Assessment declares that **Refrigerator Testing Laboratory** established in Energy & Environmental Service Department of the Centre having being found to comply with the accreditation criteria for testing/ calibration laboratories as described in ISO/ IEC 17025:2005, has been accredited as a testing laboratories under the field of Electrical Testing on 30 October 2019 and valid until 30 November 2020.

The accreditation was granted for the first time for **Lamp Testing Laboratory** in Energy & Environmental Service Department of the Centre by Sri Lanka Accreditation Board in testing/ calibration as described in ISO/ IEC 17025:2005 under the field of Electrical Testing. The Certificate was issued on 30 October 2019 and valid until 30 November 2020.

10

WELFARE AND RELIGIOUS ACTIVITIES

In order to enhance the interpersonal relationship, cooperation, teamwork of the staff and staff commitment to the institutional common activities, the NERDC has given special consideration for employee welfare and religious functions. Accordingly, summary of the activities executed by the

- welfare Society
- Buddhists Society
- Catholics Society

in 2019 are mentioned as follows;

10.1 Welfare Society

Following activities have been undertaken by the welfare society of the NERDC during the year 2019

- One day welfare trip was organized for staff members and their family members to go to Moraghakanda and Dambulla on 31 August 2019.

- Annual Blood Donation Campaign was organized in commemoration of the late Vidyajyothi Dr. A N S Kulasinghe, former Chairman of the NERDC on 25. October 2019 at Technology Park of the Centre.
- Musical program called 'Ranga Nalu Gee' was conducted on 16.12.2019 at Kulasinghe Auditorium of the NERDC

10.2 Religious Societies

Two religious societies have being actively operated in the NERDC, namely Buddhist society and Catholic society. These societies organize various Religious and Corporate Social Responsibility (CSR) programmes and activities in order to enhance the spiritual wellbeing of the NERDC staff members. One prominent feature of these societies is that all employees of the staff are a member of either the Buddhist society or the Catholic society voluntarily.

Following religious activities have been organized/ conducted by these societies in the year 2019.

10.2.1 Buddhist society

- Conducted a Seth Pirith chanting ceremony in order to mark commencement of the Centre activities of the year 2019 on 01 January 2019 at Kulasinghe Auditorium of the NERDC.
- Organized a meditation program at Salgala Aranya Senasana with the participation of the staff member of the NERDC on 30 March 2019.
- Conducted a Dharmadeshana (sermon) by Handala Damitha Thero on 15 May 2019 at Kulasinghe Auditorium of NERDC
- Assisted and attend of Katina Pinkama at Olugaskadawala Viharahena Rajamaha Viharaya, Horowpathana on 19 and 20 October 2019.
- An alms giving programme for the children in Jayawardena children's, Home, Weligampitiya on 25 October 2019.

10.2.2 Catholic Society

- Arranged a pilgrimage to Madu Church on 05 and 06 October 2019
- Conducted the Annual Christmas Mass on 22 December 2019 at the NERDC.

11

FINANCIAL REVIEW OF THE ORGANIZATION

11.1 Accounting Policies

1. Basis of Preparation

Financial Statements, which comprise the Statement of Financial Position, Statement of Performances, Changes in Equity and Cash Flows together with Accounting Policies and Notes to the Financial Statements, have been prepared in accordance with Sri Lanka Public Sector Accounting Standards.

Current accounting period is from 1st January 2019 to 31st December 2019

These Financial Statements are for year ended 31st December 2019

1.2 Basis of Measurement

The Financial Statements of the Centre, which comprise the Statement of Financial Position, Statement of performances, Changes in Equity and Cash Flows have been prepared on the basis that the Centre is going concerns and on a historical cost basis.

1.3. Functional and Presentation of Currency

Items included in the Financial Statements of Centre are measured using the currency of the primary economic environment in which the entity operates (‘the functional currency’). Financial Statements are presented in Sri Lankan Rupees, which is the Centre’s functional and presentation currency unless stated otherwise.

1.4 Comparative Information

The Financial Statements for the comparative periods comprise results for the twelve months period from 1st January 2018 to 31st December 2018. In this circumstance, the comparative information for the Statement of Financial Position, Statement of Performances, Statement of Changes in Equity and Cash Flow Statement and related notes are comparable with the current period.

1.5 Significant Accounting Judgments, Estimates and Assumptions

The preparation of Financial Statements are in conformity with Sri Lanka Public Sector Accounting Standards requires Management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income, expenses and the disclosure of contingent liabilities. However, uncertainty about these assumptions and estimates could results in outcomes that require material adjustment to the carrying amounts of the assets or liabilities affected in future periods. The Centre's Management has made an assessment of its ability to continue as a going concern and is satisfied that it has the resources to continue in business for the foreseeable future. Furthermore, Management is not aware of any material uncertainties that may cast significant doubt upon the Centre's ability to continue as a going concern. Therefore, the financial statements continue to be prepared on the going concern basis.

2. Property, Plant and Equipment

2. 1 Recognition and Measurement

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labor, any other costs directly attributable to bringing the assets to a working condition for their intended use, the costs of dismantling and removing the items and restoring the site on which they are located and capitalized borrowing costs. Purchased software that is integral to the functionality of the related equipment is capitalized as part of that equipment. When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment. The gain or loss on disposal of an item of property, plant and equipment is determined by comparing the proceeds from disposal with the carrying amount of the property, plant and equipment, and is recognized net value within other income/other expenses in Performance Statement. When revalued assets are sold, any related amount included in the revaluation reserve is transferred to retained earnings.

2.2 Revaluation

The items within a class of property, plant and equipment are revalued simultaneously in order to avoid selective revaluation of assets and the reporting of amounts in the Financial Statements that are a mixture of costs and values as at different dates. However, a class of assets is revalued on a rolling basis provided revaluation of the class of assets is completed within a short period and provided the revaluations are kept up to date.

The fair value of items of property, Plant & Equipment, is usually determined from market-based evidence by appraisal. An appraisal of the value of an asset is normally undertaken by a member of the valuation profession, who holds a recognized and relevant professional qualifications. For many assets, the fair value will be readily ascertainable by reference to quoted prices in an active and liquid market.

If the carrying amount of a class of assets is increased as a result of a revaluation, the increase shall be credited directly to revaluation surplus. However, the increase shall be recognized in surplus or deficit to the extent that it reverses a revaluation decrease of the same class of assets previously recognized in surplus or deficit.

If the carrying amount of a class of assets is decreased as a result of a revaluation, the decrease shall be recognized in surplus or deficit. However, the decrease shall be debited directly to revaluation surplus to the extent of any credit balance existing in the revaluation surplus in respect of that class of assets.

Revaluation increases and decreases relating to individual assets within a class of property, plant and equipment has been offset against one another within that class but must not be offset in respect of assets in different classes.

2.3 Depreciation

Depreciation is based on the cost of an asset less its residual value. Significant components of individual assets are assessed and if a component has a useful life that is different from the remainder of that asset, that component is depreciated separately. Depreciation is recognized in profit or loss on a straight-line basis over the estimated useful lives of each component of an item of property, plant and equipment. The estimated rates of the current and comparative years are as follows :

Asset Category	Depreciation %
Building	2.5
Office Equipment	15
Tools	15
Demonstration items	15
Computers	33 1/3
Vehicle	15
Furniture & Fittings	10
Plant Machinery & Lab Equipment	15
Library Books	5
Infrastructure	15
Soft ware	33 1/3

2.4 De-Recognition

The carrying amount of an item of property, plant and equipment is de-recognized on disposal of or when no future economic benefits are expected from its use or disposal. Gains and losses on de-recognition of the asset are determined by comparing the proceeds from disposal with the carrying amount of property, plant & equipment and are recognized net within 'other income' in the Performance Statement .

2.5 Intangible Assets

Intangible assets that are acquired by the Centre and have finite useful lives are measured at cost less accumulated amortization and accumulated impairment losses. Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. Amortization is based on the cost of an asset less its residual value. Amortization is recognized in Performance Statement on a straight-line basis over the estimated rates of intangible assets, from the date that they are available for use. The estimated rates for current and comparative years are as follows:

- Software 33 1/3 years Amortization methods, useful life and residual values are reviewed at end of each year.

3. Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on the first-in-first-out (FIFO) principle, and includes expenditure incurred in acquiring the inventories and other costs incurred in bringing them to their existing location and condition.

Chemical stocks and the Work in progress of projects are valued at the cost or net realizable value whichever is lower.

4. Trade Receivables

Trade receivables of the Centre are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method, less provision for impairment.

5. Cash and cash Equivalents

In the Statement of Cash Flows of the Centre, cash and cash equivalents includes cash in hand, cash at bank ,Temporary call deposits & State Institutional Surplus Fund deposits.

6. Loans and receivables

Financial assets with fixed or determinable payments that are not quoted in an active market, such assets are recognized initially at fair value plus any directly attributable transaction costs. Subsequent to initial recognition Loans and receivables comprise cash and cash equivalents, trade receivables and amounts due from related parties.

7. Financial Liabilities

The Centre classifies non-derivative financial liabilities into the other financial liabilities category. Other financial liabilities comprise trade payables and related party payables. Such financial liabilities are recognized initially at fair value plus any directly attributable transaction costs. The Statement of Financial Position when, and only when, the Centre has a legal right to offset the amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

8. Employee Benefits

Retirement benefits to employees are provided according to the laid down statutory requirements. Centre 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. Provision is done for the employees from year one of service in the Centre. The funds required for payment of gratuity is given by Treasury when requires. Provision is calculated as follows

(Last drawn Basic Salary plus cost of living & other allowances) x ½ x Completed Number of Years.

9. Provisions

A provision is recognized if, as a result of a past event, the Centre has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation.

10. 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.

11. Revenue

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, NBT and value added taxes. The following specific criteria are used for recognition of revenue:

a) Sale of Developed 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 which 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 where the contract outcome cannot be measured reliably and revenue is certain.

d) Taxes

Taxes include Income Tax, Value Added Tax, and Nation Building Tax. Centre Companies in the Centre pay such taxes in accordance with the respective statutes.

e) Interest Income

Interest income is recognized as and when the interest accrues.

f) Gains and Losses on Disposal of Assets

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.

g) 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, Nonrefundable deposits, Registration of Suppliers, Sundry income, Damaged Stock disposal income, Gain on disposal of assets and overhead recovery etc.

h) Differed Income

Where the Capital grant relates to an asset released from the general treasury, 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.

13. Grants

Grants are recognized when 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 Centre receives non-monetary grants, the asset and that grant are recorded at fair value.

14. Expenditure and Presentation in Income Statements

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 against to income in calculating the surplus/ (deficit) for the period.

15. Research and Development

Research & Development projects are mainly funded by the Treasury. If Research projects are partly funded by a client this income is taken against the expenditure.

When costing the research projects only the direct cost considered.

16. Mechatronics Enabled Economic Development Initiative (MEDI)

The Standard Training Prototyping and Testing Facility (SPTF) will be a Project under the NERDC and will be transformed to government owned private, independent and non-profitable entity where the Sri Lankan Electronics/Mechatronics companies/startups could utilize for their product designing developing and prototyping, testing and certifying with nominal fee.

Main Objective of this project is to increase locally developed high tech product exports in the country therein increase the GOP growth. Further creation of a set of local Hi Tech manufactures and value chain for licensed products is an objective too.

11.2 Statement of Financial Position as at 31/12/2019

Figures in LKR

	2019	Restated 2018
Assets		
Current Assets		
Cash & Cash Equivalent	126,339,546.05	140,354,049.19
Trade Receivables	17,618,309.74	17,546,162.92
Inventories	14,791,984.43	11,785,462.57
Pre - Payments	795,300.70	738,034.98
Other Current Assets	27,498,948.47	26,568,648.77
	187,044,089.39	196,992,358.43
Non-Current Assets		
Property Plant & Equipment	521,347,850.51	553,579,806.62
Other Intangible Assets	387,969.45	368,195.45
Other Non-current Assets	29,521,179.60	26,096,072.67
	551,256,999.56	580,044,074.74
Total Assets	738,301,088.95	777,036,433,17
Liabilities		
Current Liabilities		
Trade & Other Payables	47,918,927.90	52,448,519.66
Total Current Liabilities	47,918,927.90	52,448,519.66
Non-Current Liabilities		
Provision for Gratuity	111,340,048.00	103,094,433.50
Security Deposit	6,200.00	6,200.00
	111,346,248.00	103,100,633.50
Total Liabilities	159,265,175.90	155,549,153.16
Total Net Assets	**579,035,913.05**	**621,487,280.01**
Differed Income	127,550,154.78	140,353,874.58
Capital contributed by the Government entities	193,166,313.43	211,475,012.24
Revaluation Reserve	525,029,579.04	525,008,739.75
Accumulated surpluses/(deficits)	(266,710,134.20)	(255,350,346.56)
Total Net assets/Equity	**579,035,913.05**	**621,487,280.01**

Prof.Leelananda Rajapaksha
Chairman

Eng.D.D.Ananda Namal
Director General

D.V.S. Perera
Director (Finance)

11.3 Statement of Financial Performances for the year ended 31/12/2019

Figures in LKR

	2019	Restated 2018
Revenue		
Transfers from the Government entities	280,152,034.89	277,620,000.00
Differed Income	64,656,358.72	64,155,104.67
Other Income	44,632,874.50	48,463,526.79
Total Revenue	389,441,268.11	390,238,631.46
Expenditure		
Administrative Cost	304,527,919.34	274,184,936.49
Other Expenses	25,879,703.01	35,504,960.44
Depreciation	70,338,193.40	69,826,999.97
Financial Cost	55,240.00	91,958.69
Total Expenditure	400,801,055.75	379,608,855.59
Surplus/(Deficit) for the period	(11,359,787.64)	10,629,775.87

11.4 Cash Flow Statement For The Year Ended 31/12/2019

Figures in LKR

	2019	Restated 2018
NET CASH FLOWS FROM OPERATING ACTIVITIES		
Surplus/ (deficit) from ordinary activities	(11,359,787.64)	10,629,775.87
Non- Cash movements		
Depreciation	70,338,193.40	69,826,999.97
Increase /(decrease) in differed Income	(64,656,358.72)	(64,155,104.67)
Increase/(decrease) in payables	(5,375,898.76)	5,439,106.68
Increase/(decrease) in relating to employee costs	9,091,921.50	5,796,394.14
(Gains)/losses on sale of property, plant and equipment	1,674,516.34	1,321,844.68
(Increase)/decrease in other current assets	(7,419,194.21)	27,551,641.24
(Increase)/decrease in receivables	(72,146.82)	(15,191,964.57)
Net Cash Flows from operating activities	(7,778,754.91)	41,218,693.34
Cash Flow From Investment Activities		
Purchase of assets	(39,785,925.17)	(80,818,492.37)
Proceeds from sales of assets	6,236.83	12,816.69
Net Cash Flows from Investment Activities	(39,779,688.34)	(80,805,675.68)
Cash Flow From Financing Activities		
Capital grant	33,543,940.11	34,900,000.00
Funds from Sri Lanka Inventors Commission	-	8,524,567.15
Net Cash Flow from Financing Activities	33,543,940.11	43,424,567.15
Net Increase/(Decrease) in Cash & Cash equivalents	(14,014,503.14)	3,837,584.81
Cash & Cash Equivalent at beginning of the period	140,354,049.19	136,516,464.38
Cash & Cash Equivalent at end of the period	126,339,546.05	140,354,049.19

11.5 Statement of Change in Equity as at 31/12/2019

Figures in LKR

	Capital Introduced	Government Contributed Capital	Restated Differed Income	Capital from Other sources	Restated Revaluation surplus	Restated Accumulated Surplus /(Deficit)	Total Net Assets/Equity	Balance As At Restated 31.12.2017
Balance as at 01/01/2018	1,000,000.00	97,299,792.87	125,705,996.60	148,553,634.87	525,008,739.75	(265,980,122.43)	631,588,041.66	622,026,890.80
Changes in equity for 2018							-	
Capital Grant received -Treasury		34,900,000.00					34,900,000.00	37,997,000.00
Capital Grant received from Sri Lanka Inventors Commission		8,524,567.15					8,524,567.15	35,570,540.88
Net of Capital purchase less recoverable depreciation to Differed Income		(78,802,982.65)	14,647,877.98				(64,155,104.67)	(57,860,922.57)
Surplus/Deficit for the period						10,629,775.87	10,629,775.87	(6,077,467.45)
Increase in revaluation reserve							-	(68,000.00)
Balance as at 31/12/2018	1,000,000.00	61,921,377.37	140,353,874.58	148,553,634.87	525,008,739.75	(255,350,346.56)	621,487,280.01	631,588,041.66
Changes in equity for 2019								
Capital Grant received -Treasury		33,543,940.11					33,543,940.11	43,424,567.15
Funds from Sri Lanka Inventors Commission		-					-	
Net of Capital purchase less recoverable depreciation to Differed Income		(51,852,638.92)	(12,803,719.80)				(64,656,358.72)	(64,155,104.67)
Capital Reserved From other Sources				-			-	-
Surplus/Deficit for the period						(11,359,787.64)	(11,359,787.64)	10,629,775.87
Increase in revaluation reserve					20,839.29		20,839.29	-
Balance as at 31/12/2019	**1,000,000.00**	**43,612,678.56**	**127,550,154.78**	**148,553,634.87**	**525,029,579.04**	**(266,710,134.20)**	**579,035,913.05**	**621,487,280.01**

11.6 Notes to the Accounts as at 31/12/2019

1. Previous Year Adjustments

Figures in LKR

Ref No	Description	Detailed adjustment			2018	Balance before 1/1/2018	Effect to the balance sheet
		Details	Declared	After adjustment			
	Balance b/f				11,318,733.49	(247,886,981.10)	
1.01	DPD/54/2018 under provision of Income in the year 2018	Income	651,000.00	701,000.00	50,000.00		Increase in debtors
		Expenditure	661,050.08	661,050.08			
		Net	(10,050.08)	39,949.92			
1.02	Cost of three wheeler in 2007 transferred as an advance payment from the project APH/RES/80/2007		1,117,658.30	815,898.30		301,760.00	Increase in advance paid
1.03	Over provision of Telephone Expenditure		5,650,889.14	5,521,900.37	128,988.77		Decrease in Current Liabilities
1.04	ENED/COM/ACT/76/18 ,Over provision of expenditure	Income	190,887.04	190,887.04			Reduction in accrued expenditure
		Expenditure	(127,113.07)	(124,613.07)			
		Net	63,773.97	66,273.97	2,500.00		
1.05	CED/COM/73/18 Construction of pre stress foot bridge in Kegale and the over provision of cost of construction done by Sasiri Construction-LKR 242,533.35 and Seven Architive-LKR 376.26 Working progress as at 31/12/2018 is transferred from cost	Income	4,931,145.45	4,931,145.45	-		Over provision in creditors Sasiri - 242,533.35 Sevena 376.26
		Expenditure	(5,284,006.61)	(4,121,247.52)	242,909.61		
		Net	(352,861.16)	809,897.93	919849.48		
1.06	RED/C/67/15 Rehabilitation of Incinerator Dehiwela-Under provision of cost	Income	11,765,334.48	11,765,334.48			Under provision in after sales service
		Expenditure	(9,215,575.03)	(9,236,567.81)		(20,992.78)	
		Net	2,549,759.45	2,528,766.67			
1.07	DFCI/COM/75/17 Mineral Sand	Income	552,500.00	552,279.48		(220.52)	Decrease in value of work done on closed projects
		Expenditure	(287,212.33)	(287,212.33)			
		Net	265,287.67	265,067.15			
1.08	MD/COM/4/118/15	Income	840,948.55	829,521.67		(11,426.88)	Decrease in value of work done on close projects
		Expenditure	(784,942.37)	(784,942.37)			
		Net	56,006.18	44,579.30			
		Expenditure	661,050.08	661,050.08			
		Net	(10,050.08)	39,949.92			
		Expenditure	(127,113.07)	(124,613.07)			

1.09	Overtime arrears was paid due to change in calculation method according to circular DMS 04/2018	2018	2017	2016			Increase in accrued expenses on overtime
	Declared	3,501,339.05	2,373,245.63	1,940,756.42			
	After adjustment	4,209,012.05	4,346,079.63	3,182,209.42			
	Adjustment	707,673.00	1,972,834.00	1,241,453.00	(707,673.00)	(3,214,287.00)	
1.10	Over Provision of Incentive in the year 2018 Advance payment of LKR 1,270,000.00 for the year 2019 is erroneously debited to Incentive account , administrative deductions of LKR 292,037.43 and Over provision of LKR 5,866.39 are reverse from the provision		2018 18,600,000.00	Corrected 2018 17,032,096.18	1,567,903.82		Provision for Incentive will be reduced by 1,567,903.82 LKR
1.11	Under Provision of Depreciation Accumulated Depreciation-Furniture Fittings & Office Equipment	13,589.04	2012	47,947.93			Accumulated Depreciation is under/Over provided
	Plant & Machinery	(278,400.00)	2016	(277,500.00)			
	Computer	3,176.85	2017	(24,293.14)			
	Infrastructure	46,241.74	2018	17,589.38	17,589.38	(253,845.21)	
	Equipment	(20,863.46)					
		(236,255.83)		(236,255.83)			
1.12	VAT Adjustment Unrecoverable VAT from Year 2005 -2009 has been absorbed to revaluation reserve account Revaluation Reserve-Building	2,184,487.41					CGIR balance will be reduced by LKR 5,618,946.07 and Revelation reserve will be reduced by 5,618,946.07
	Plant & Machinery	3,169,658.77					
	Office Equipment	157,826.27					
	Furniture Fittings	106,973.62					
		5,618,946.07					
1.13	Unrecoverable VAT on recurrent payments prior to year 2018 is written back to Surplus/Deficit account					(14,853,466.92)	Brought forward surplus/Deficit will be increased by 14,853,466.92 and CGIR receivable ,VAT paid by Customers and WHT deducted will be reduced by 14,544,729.81,69,644.71,239092.40 respectively

1.14	N/MD/COM/04/118/15 Overprovision in after sales is adjusted					11,751.66	After sales will be reduced by 11,751.66
1.15	Under provision in Popularization in the year 2018 Production of documentary video				(1,473,952.70)		Creditors balance will be increased.
1.16	Under provision in salaries and Payables Year 2017 Salary has been under provided EPF/ETF Payable increased Vehicle Loan is decreased Stamp duty payable is increases					(52,413.68)	41,972 10,416.68 25.00
1.17	E&ESD/COM/51/18Excess income had recognized in 2018 Income Expenditure Surplus/Deficit	Year 2018 470,000.00 16,786.54 453,213.46	Corrected 235,000.00 16,786.54 218,213.46		(235,000.00)		Customer advance is increased
1.18	Under provision in Income tax				(214,848.46)		CGIR balance is increased
1.19	Under stating pre payments of License & Insurance Vehicle No 41-2493 301-3740	805.47 (510.52)			294.95		Pre-payment is increased by LKR 805.47 and Accrued Expenses will be increased by LKR 510.52
1.20	Over provision in postage. Stamp stock as at 31/12/2018 is taken to accounts				21,722.00		stock in hand is increase by 21,722
1.21	DPD/COM/6-2/12/2018 Construction of VRC building at Mahiyangana	Income Expenditure Net	9,694,252.70 (8,729,444.47) 964,808.23	9,581,028.82 (8,729,444.47) 851,584.35	(113,223.88)		Reduction in Value of work done on closed projects by 113,223.88
1.22	DPD/COM/6-39/2018 Renovation work to the deputy ministers quarters	Income Expenditure Net	5,049,660.00 (3,742,235.44) 1,307,424.56	4,153,642.41 (3,742,235.44) 411,406.97	(896,017.59)		Reduction in Value of work done on closed projects by 896,017.59
	Total				**10,629,775.87**	**(265,980,122.43)**	

Notes to the financial Position as at 31/12/2019

02. Deposits kept as securities for Guarantee Bonds

Guarantee is issued in favor of	Bond No/Date	Bond	Certificates Pledge as Security	Amount LKR.	Bank	Bond Value LKR.
Toyota Lanka (Pvt)Ltd	15/2008 12/18/2019-12/17/2020	Guarantee Bond	C/33734579-507908	100,000.00	BOC Ja- Ela	75,000.00
Municipal Commissioner Kurunegala	10/2017 12/21/2017-12/21/2018	Guarantee Bond	1057614-81889909 1057615-81889925 1057616-81889906	1,000,000.00 1,000,000.00 1,000,000.00		2,845,000.00
Bhiksu University of Sri Lanka	9/2018 12/26/2019-02/16/2020	Guarantee Bond	1473755-83503832 1473756-83503837 1473757-83503700 1473758-83503765 1473759-83503726 1473760-83503712	1,000,000.00 1,000,000.00 1,000,000.00 1,000,000.00 1,000,000.00 1,000,000.00		5,808,673.47
	7/2018 12/26/2019-02/16/2020	Performance Bond	1473754-83503820	1,000,000.00		968,112.24
Institute of Indigenous Medicine	2019000395 6/1/2019-11/30/2019	Performance Bond	1571004-84276128	3,000,000.00		2,588,000.00
Regional Director of health Services	20190003917 9/5/2019-12/31/2019	Guarantee Bond	1599884-84754448	2,000,000.00		1,574,795.00
	20190003919 9/24/2019-12/31/2019	Performance Bond				393,698.75

03. Disposal of Fixed Assets

Figures in LKR

Asset Category	Cost	Accumulated Depreciation	Written down value	Proceeds	Profit/(loss)
Computer	120,000.00	119,988.80	11.20	1,000.00	988.80
Demonstration	4,000.00	1,800.00	2,200.00	-	(2,200.00)
Equipment's	2,138,800.00	962,460.00	1,176,340.00	562.00	(1,175,778.00)
Furniture and Fittings	1,000.00	300.00	700.00	55.00	(645.00)
Office Equipment's	724,000.00	408,833.42	315,166.58	508.58	(314,658.00)
Plant and Machinery	34,000.00	15,300.00	18,700.00	2,750.00	(15,950.00)
Software Sql Server 2005 Set 01	632,000.00	631,936.80	63.20	-	(63.20)
Tools	300,027.93	132,455.74	167,572.19	1,361.25	(166,210.94)
Grand Total	**3,953,827.93**	**2,273,074.76**	**1,680,753.17**	**6,236.83**	**(1,674,516.34)**

04. Commissioner General of Inland Revenue receivable

VAT component amounting to LKR 5,618,946.07 for the period of 2005-2009, in capital items are adjusted through Revaluation Surplus. Recurrent recoverable VAT amounting to LKR 14,544,729.81, W H Tax amounting to LKR 239,092.40 and VAT paid by customers amount in to 696,644.71 is adjusted through brought forward surplus/Deficit.

05. Temporary deposits

Funds received as bond Income from NERDC employees who has left the services before completion of the bond period is invested in State Institutions Temporary Surplus Trust Fund maintained at Bank of Ceylon, a sum of LKR.8,994,089.90 with dividends & interest and withdrawal of LKR.1,500,000.00 to pay the Special loan advance as per the circular 1/2017 from finance and Mass media on 31/07/2017. In Year 2018 LKR 6,000,000.00 was withdrawn on 15/11/2018 as recurrent money approved was not received .At present balance is LKR. 6,676,018.87 as at 31/12/2019 .

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.

06. Work in progress in ongoing projects

Work in progress of ongoing projects has been disclosed under inventories.

07. Contingent Liabilities

Under the instruction of Ministry of Science & Technology following purchases are committed on behalf of STPF (Standards Training Prototyping & Testing Facility) project. These items are to be funded by the Ministry funds.

Item description	PO No	Amount	Supplier Name
CNC Laser Cutter	19/SPTE/001	9,056,250.00	M/s CMC Engineering Export GmbH
IP Testing Facility	19/SPTE/002	23,441,406.76	M/s Dar E-Com(pvt)Ltd
Total		**32,497,656.76**	

08. Related party disclosures (SLPSAS 14)

The following disclosures are made in the financial statements of National Engineering Research & Development Centre of Sri Lanka for the year 2019, which is a separate reporting entity. During reporting period Centre had not provided any remuneration compensation to close family members of key management personnel.

09. Standards training prototyping & testing facility

The Ministry has already initiated a project on Mechatronics Enabled Economics Development Initiative (MDEI) with the main Objective to grow our Economy and our hi-tech exports, and to reduce our imports through designing smart Machines for licensed manufacture locally and globally. In achieving this objective, it is intended to setup a product Design Engineering Park (PDEP) for mechatronics PDE companies with two components; a Long – Term Loan Facility (LTLF) and shared services Standards Training, Photocopying and test facility (SPTF).

01. Cash Flow Note For The Year Ended 31st December 2019

Figures in LKR

Cash flow from Operating activities	2019	Restated 2018
Receipts		
Project Income	84,744,976.10	67,299,051.08
Recurrent & Research Grants	280,152,034.89	277,620,000.00
Interest Received	7,806,035.40	8,144,795.21
Other Receipts	3,910,075.80	3,880,026.58
Payments		
Employee Cost	(230,953,277.83)	(211,469,896.90)
Superannuation cost	(22,558,474.50)	(16,553,181.28)
Supplies	(100,872,315.86)	(59,475,692.30)
Other Payments	(27,898,326.74)	(25,235,382.09)
Corporate Income Tax	(2,109,482.17)	(2,991,026.96)
Net Cash flow from Operating Activities	(7,778,754.91)	41,218,693.34
Cash Flow From Investment Activities		
Purchase of assets	(39,785,925.17)	(80,818,492.37)
Proceeds from sales of assets	6,236.83	12,816.69
Net Cash Flows from Investment Activities	(39,779,688.34)	(80,805,675.68)
Cash Flow From Financing Activities		
Capital grant	33,543,940.11	34,900,000.00
Net Cash Flow from Financing Activities	33,543,940.11	43,424,567.15
Net Increase/(Decrease) in Cash & Cash equivalents	(14,014,503.14)	3,837,584.81
Cash & Cash Equivalent at beginning of the period	140,354,049.19	136,516,464.38
Cash & Cash Equivalent at end of the period	**126,339,546.05**	**140,354,049.19**

Figures in LKR

	2019	2018
2. Non Cash Transactions		
Vehicles received from Treasury	- -	- -
	-	-

3. Cash & Cash Equivalent	**2019**	**2018**
Bank of Ceylon Ja-ela Branch A/C No 404949	1,506,820.26	607,997.66
Bank of Ceylon Ja-ela Branch A/C No 405005	395,116.77	115,623.98
Bank of Ceylon Ja-ela Branch A/C No 404956	2,969,806.23	2,326,387.03
Bank of Ceylon Corporate Branch A/C No 1667	3,862,317.98	1,904,451.84
Cash in Hand	3,609,465.94	48,053.57
Temporary Call Deposits-Ja-ela Branch	62,500,000.00	74,200,000.00
Temporary Call Deposits-Corporate Branch	44,820,000.00	55,000,000.00
State Institutional Temporary Surplus Fund	6,676,018.87	6,151,535.11
	126,339,546.05	**140,354,049.19**

12

REPORT OF THE AUDITOR GENERAL FOR THE YEAR ENDED 31.12.2019

23 July 2020

Chairman,
National Engineering Research and Development Center of Sri Lanka,

Report of the Auditor General in terms of Section 12 of the National Audit Act No. 19 of 2018 on Financial Statements and Other Legal and Regulatory Requirements of the National Engineering Research and Development Center of Sri Lanka for the year ending 31st December 2019

1. Financial Statements

1.1 Opinion

Sri Lanka National Engineering Research and Development December 31, 2019 Statement of Financial Status and Statement of Financial Performance for the year ending 31 December 2019 The financial statements for the last year were audited under my direction by the National Audit Act No. 19 of 2018 and the Finance Act No. 38 of 1971, read in conjunction with Article 154 (1) of the Constitution of the Democratic Socialist Republic of Sri Lanka. My report will be tabled in the parliament in due course in accordance with Article 154 (6) of the Constitution.

It is my view that the financial position of the Center as at 31st December 2019 and its financial performance and cash flow for the year ending on the same date reflects a true and equitable position in accordance with the Sri Lanka Public Sector Accounting Standards.

1.2 Basis for opinion

I conducted my audit in accordance with Sri Lanka Auditing Standards (SLAS). My responsibilities, under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my report. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my qualified opinion.

1.3 Responsibilities of the management and controlling parties on financial statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with Sri Lanka Public Sector Accounting Standards and for such internal control as management determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Center's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Board or to cease operations, or has no realistic alternative but to do so.

Responsibility for the financial reporting process of the Center remains with the controlling parties.

Sub-section 16 (1) of the National Audit Act No. 19 of 2018 requires the Center to maintain proper books and records on its own income, expenditure, assets and liabilities so as to be able to prepare annual and current financial statements.

1.4 Responsibility of the Auditor in relation to the auditing of financial statements

My objective is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sri Lanka Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud and error as they affect individually or in the aggregate and they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Sri Lanka Auditing Standards, I exercise professional judgment and maintain professional skepticism throughout the audit. I also.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit 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 Center's internal control.

- The fairness of the accounting policies used and the accounting estimates and the appropriateness of the relevant disclosures made by management were evaluated.

- Conclude on the appropriateness of the management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Center's ability to continue as a going concern. If I conclude that there is sufficient uncertainty, my audit report should focus on the disclosures made in the financial statements, and if those disclosures are insufficient, my opinion should be distorted. However, continued existence may end based on future events or circumstances.

- The presentation, structure and content of financial statements, including disclosures, were evaluated and the transactions and events on which they were based were evaluated to be appropriately and reasonably included in the financial statements.

The governing parties were briefed on important audit findings identified during my audit, key internal control weaknesses, and other issues.

2. Report on other legal and regulatory requirements

The National Audit Act No. 19 of 2018 contains special provisions regarding the following requirements.

- In accordance with the requirements of Section 12 (a) of the National Audit Act No. 19 of 2018, I obtained all the information and explanations required for the audit, and as per my examination, the proper financial reporting was maintained by the center.

- The financial statements of the Center is consistent to the previous year as per the requirement mentioned in Section 6 (1) (b) () of the National Audit Act No. 19 of 2018.

- The recommendations made by me during the last year as per the requirement mentioned in Section 6 (a) (b) (iv) of the National Audit Act No. 19 of 2018 are included in the financial statements submitted.

Based on the action taken and the evidence obtained and quantitative facts In restraint, nothing caught my attention as much as the following statement.

- In accordance with the requirement of Section 12. (d) of the National Audit Act No. 19 of 2018, a member of the Board of Directors of the Center shall have a direct or otherwise involvement with the Center in connection with any contract outside the normal business situation.

- Failure to comply with any applicable written law or other general or special directives issued by the Board of Governors of the Center as required by Section 12 (f) of the National Audit Act No. 19 of 2018.

- Incompatibility with the powers, functions and tasks of the center as per the requirement mentioned in Section 12 (g) of the National Audit Act No. 19 of 2018

- That the center has not procured and used the resources of the center efficiently and effectively within the relevant periods complying with the applicable rules and regulations as per the requirement mentioned in Section 12 (h) of the National Audit Act No. 19 of 2018.

03. Other audit observations

(A) The expenditure incurred in obtaining patents for new equipment discovered by the Institute was identified as Rs. 383,480 as intangible assets and accounted for. Although the value of those assets should have been re-evaluated in identification for financial statements, only the cost incurred in acquiring them had been taken into account.

(B) The Center had, on the instructions of the Ministry, borne the cost of releasing 06 equipment for the purification of drinking water received by a private institution from the Government of Japan at the port at a cost of Rs. 359,248. The transaction, which took place in 2017, was accounted for as receivables but had not been recovered as at the end of the year under review.

WPC Wickramaratne
Auditor General

13

OBSERVATIONS OF THE BOARD OF DIRECTORS FOR THE REPORT OF THE AUDITOR GENERAL

Reports of the Auditor General on the Financial Statements of the Sri Lanka National Engineering Research and Development Centre for the year ended 31st December 2019 and other legal and regulatory requirements as per the national act on auditing no. 19, 2018.

3. Other Audit Observations

(a) Measures will be taken to value the intangible assets and shown in the accounts for the year 2020.

(b) This money is to be received from the Ministry of Higher Education, Technology and Innovation. Although a request has been made for this, the Ministry has not yet paid it and will take step to settle it in the future.

Prof. Leelananda Rajapaksha
Chairman

Eng. D D Ananda Namal
Director General