# **Ministry of Education**



# NATIONAL ENGINEERING RESEARCH & DEVELOPMENT CENTRE OF SRI LANKA



# VACANCIES

National Engineering Research and Development Centre (NERDC) is the premier engineering research and development organization, operating under the purview of the Ministry of Education of the government of Sri Lanka. Over the last 5 decades, NERDC has embarked on challenging and nationally important engineering research & developments projects, professional industrial services, precision machinery services and standard laboratory services through its competent workforce and state-of-the-art facilities. NERDC is now planning to collaborate with industrial partners, forming business partnerships, achieving targets and delivering outputs by working round the clock. Thus, NERDC intends to recruit qualified, energetic, proactive and innovative Sri Lankan professionals for the following posts.

# 5. Senior Research Engineer (AR-2)

#### 5.1. External Candidates

- I. Civil Engineering
- II. Electronic/Electrical & Electronic/Electronic & Telecommunication Engineering
- III. Mechanical Engineering
- IV. Mechanical/Chemical/Manufacturing/Production Engineering
- V. Mechatronics/Mechanical Engineering with Mechatronics Stream

# (a) Basic Academic Qualifications

Bachelor's Degree of 4 years' duration in relevant engineering fields from a University recognized by the University Grants Commission (UGC) of Sri Lanka

OR

Associate Member of the Institute of Engineers, Sri Lanka

ANC

#### (b) Professional / Additional Academic Qualifications

Corporate Membership (Charter) of a Professional body recognized by the Institute of Engineers, Sri Lanka

OR

Postgraduate Degree in 'Master Level'

AND

(c) Experience - Minimum 8 years post qualifying experience in the relevant field to the post, after obtaining the first Degree.

#### 5.2. Internal Candidates

Having obtained the qualifications required by the external candidates above

OR

Corporate Membership (Charter) of a professional body recognized by the Institute of Engineers of Sri Lanka/ Postgraduate Degree in the relevant field in Masters level and eight (08) years' experience in AR 1/ MM 1-1 after first Degree.

#### 5.3. Job Description

- Conducting and managing Engineering Research and Development Projects timely within the budgets
- Planning, designing and executing field experiments and trials
- Preparing comprehensive research proposals

- Assisting Research Fellows and Senior Research Fellows for their research works
- Supervising, monitoring and guiding research projects conducted by Research Engineers
- Engineering design and preparation of engineering drawings
- Executing Consultancy work on industrial problems
- Preparing progress reports
- Preparation of Technology transfer packages and involve in technology transfer activities
- Publications of research papers
- Preparation of claims and documents required to obtain patents
- Analysis and simulation of research results and preparation of research reports
- Attending local & international seminars/workshops and conferences
- participating technical evaluation committees and procurement committees
- Preparation of drawings/BOQs etc.
- Participating Research Planning Council
- Coordinating with research teams and be an active team player.

## 5.4. Areas of Expertise

#### I. Civil Engineering

# Selected candidate should

- have effective communication skills and ability to collaborate with project teams
- have track records of successful project management and leadership experiences
- have in-depth knowledge of civil engineering design, quantity surveying and structural analysis
- have experience in relevant software and tools used in civil engineering (PROCON, SAP, ETAB)
- work with construction standards BS/EUROCODE) and guidelines (CIDA)
- have strong analytical and problems solving skills to address complex engineering challenges
- have ability to bring innovative and creative solutions to engineering problems
- have knowledge on public procurement and contract administration
- have proficiency in project management methodologies and tools

#### II. Electronic/Electrical & Electronic/Electronic & Telecommunication Engineering

#### Selected candidate should

- have effective communication skills and ability to collaborate with project teams
- have track records of successful project management and leadership experiences
- have in-depth knowledge of electrical & electronic engineering design, electrical installation, power electronics, circuit design, IOT, embedded designs, motor controllers
- have experience in relevant software and tools used in electrical & electronic engineering (ALTEUM/SOLID WORKS/ORCAD)
- work with national and international standards (SLS/IEC) and regulations
- have strong analytical and problems solving skills to address complex engineering challenges
- have ability to bring innovative and creative solutions to engineering problems
- have proficiency in project management methodologies and tools

# III. Mechanical Engineering

#### Selected candidate should

- have effective communication skills and ability to collaborate with project teams
- have track records of successful project management and leadership experiences
- have in-depth knowledge of mechanical engineering design, advanced manufacturing systems and analysis
- have experience in relevant software (CAE/CAM/CAD) and tools used in mechanical engineering
- work with industry standards and regulations
- have strong analytical and problems solving skills to address engineering challenges
- have ability to bring innovative and creative solutions to engineering problems
- have proficiency in project management methodologies and tools

## IV. Mechanical/Chemical/Manufacturing/Production Engineering

#### Selected candidate should

- have effective communication skills and ability to collaborate with project teams
- have track records of successful project management and leadership experiences
- have experience in performance evaluation of efficient energy systems, renewable energy project
- have experience in design and evaluation of pollution control systems, effluent treatment plants,
  waste management systems
- ability to carry out energy efficiency projects, green building designs, building automations
- ability to deliver technical services related to industrial energy and environmental issues
- ability to conduct environmental impact assessments, C- foot printing, energy bench marking etc.
- have experience in energy efficiency/pollution mitigation related Research and Development projects handling
- have proficiency of instrumentation and measurement techniques, laboratory accreditations
- have experience in ISO 50001/ISO17025 management systems, environmental regulations/ standards
- have ability to bring innovative and creative solutions to industrial energy and environmental issues
- have proficiency in project management methodologies and tools

# V. Mechatronics/Mechanical Engineering with Mechatronics Stream

#### Selected candidate should

- have effective communication skills and ability to collaborate with project team/s
- have track records of successful project management and leadership experiences
- have in-depth technical knowledge of pumps/motors/EVs testing, material selection, machine design
- have proficiency in relevant software (CAE/CAM/CAD) and tools used in mechatronics engineering
- work with industry standards and regulations
- have strong analytical and problems solving skills to address engineering challenges
- have ability to bring innovative and creative solutions to engineering problems
- have design and development of customer requested factory automation system
- have experience in electric motor operation drive system; PLC, VSD, starters knowledge and motor drivers, servo and stepper motor controlling
- have basic in depth knowledge of robotic system, drone technology, EV and battery management
- have proficiency in project management methodologies and tools

#### 5.5.Age

Should be not less than 30 years and not more than 55 years. (The upper age limit will not apply to the employees of the Government Corporations/ Boards/ Public Sector).

#### 5.6. Salary Code and the Monthly Salary Scale - AR 2-2016; Rs. 76,200 - 10 x 2,000 - 96,200

Basic Salary - Rs. 76,200/- + 15,000/- + 12,800/- + 5,000/-

(Basic salary + Government approved engineering allowance + Cost of Living allowance + Special allowance based on the government circular provisions).

#### 5.7. Other Benefits

- Centre contributes 15% of the salary to the Employees Provident Fund and employee should contribute 10%.
- Centre contributes 3% of the salary to the Employees Trust Fund.
- Reimbursement of medical bills as per the approved Medical Scheme of the NERD Centre.
- Communication allowances (Residential/mobile phones)
- Pool transport for the scheduled destinations through main routes
- Disbursement of income generations through profitable projects/services

#### 5.8. Recruitment Procedure

Applications are short listed, competitive written examination and a structured interview conducted by a panel appointed by the appointing authority.

#### **General Conditions**

Applicants should forward their signed application with copies of birth certificate, educational certificates, experience and service certificates and other relevant certificates, names, addresses and telephone numbers of two non-related referees under the registered post to reach the Director General Office, National Engineering Research and Development Centre, 2P/17B, Industrial Estate, Ekala, Jaela, on or before 25th February 2024. Applications (in pdf format) via e-mail (careers@nerdc.lk) will also be accepted and the received applications will be acknowledged.

The application should be sent using the **NERDC Specimen Application Form.** Applications which are not in accordance to the Specimen Application Form **will be rejected**.

Any application received after the closing date or does not confirmed to the above requirements will not be entertained.

Applications from officers in Government Departments/Corporations/Statutory Boards should be forwarded their applications through respective Heads of the institute. An advance copy may be sent directly.

The post applied should be marked on the top left hand corner of the envelope.

Any form of verbal or written canvassing is strictly prohibited and such an attempt shall be considered as a reason for disqualification.

# Closing date of applications is 25th February 2024.

The National Engineering Research and Development Centre reserve the rights to decide on the number of candidates to be recruited.

## **Director General**

National Engineering Research and Development Centre, 2P/17B, Industrial Estate, Ekala, Ja ela TP. - 0113 500 015/0112 236 284/0112 236 307

E-mail - careers@nerdc.lk