

READVERTISEMENT

Scientist/Engineer: Acoustics, Ultrasound, and Vibration

Salary Range: R 474 888.96 – R 558 692.89 per annum (all inclusive)

OVERVIEW OF THE ORGANISATION

The National Metrology Institute of South Africa (NMISA) is a Type 3A Public Entity established in accordance with the Measurement Unit and Measurement Standards Act, No. 18 of 2006 (the Act). The NMISA is mandated by the Act to provide for the use of the international system of units (the SI) and other measurement units in South Africa, to maintain National Measurement Standards (NMS) and to determine and ensure international measurement equivalence of the NMS and to disseminate it. More information can be obtained from www.nmisa.org

PURPOSE OF THE POSITION

To disseminate traceability relating to the National Measurement Standards in the field of Acoustics (sound in air), Ultrasound and Vibration to industry, thereby supporting South African trade and to facilitate the implementation and maintenance of the requirements of the NMISA Total Quality Management System (TQMS) within the Acoustics, Ultrasound and Vibration Section to ensure the effectiveness and smooth functioning of relevant NMISA processes.

MINIMUM QUALIFICATIONS, SKILLS AND EXPERIENCE

- Three-year tertiary qualification in the following fields: B.Eng (Mechatronics or Electronics) or four-year B.Tech (Mechatronics or Electronics) with a clear understanding of mechanical systems.
- Minimum of three (3) years' work experience in a laboratory/technical environment (in acoustics and/or vibration will be an added advantage).
- Proven software development experience and instrumentation automation and control.
- Strong mathematical and statistics background
- Computer literacy in Microsoft™ Office Suite software and Microsoft™ operating systems.
- Experienced in technical report writing.
- Must be able to work independently and as part of a team.
- Must pay attention to detail.
- Must be able to perform physical and logical reasoning independently.
- Comfortable with repetitive work/ tasks.
- Comfortable with working with established/ structured environment/ procedures.
- Proficiency with hand tools and electronic measurement and simulation instruments.
- Strong written English communication skills. The following will be an advantage:
 - Working knowledge of ISO/IEC 17025 and NMISA Total Quality Management System.
 - An understanding of GUM and the Estimation of Measurement Uncertainty.
 - Working knowledge of relevant International Published Document Standards (IEC and ISO).

DUTIES AND RESPONSIBILITIES:

- Development of measurement techniques and technical procedures.
- Maintenance and dissemination of national measurement standards to industry through calibration of client instruments and reference standards.
- Routine calibration of instruments, equipment, and transducers for clients.
- Scientific reporting and record keeping.
- Maintenance of laboratory instruments.
- Providing transfer of knowledge to industry by presenting technical papers at workshops and conferences, and in local or international publications, preferably peer-reviewed.
- Participate in selected NMISA-wide technical forums.
- Provide input and assist in compiling laboratory plans for budget, capital, and the NMISA financial system as relevant to the areas of responsibility.
- Comply with the requirements of the NMISA TQMS, ISO/IEC 17025, and SANAS accreditation to ensure process consistency and effectiveness.
- Procure the equipment, components, and consumables required for maintenance, development, improvement, and research-related activities in line with public entity procurement legislation and guidelines as captured in the NMISA finance policies.
- Estimation of uncertainty of measurement and development of uncertainty budgets.
- Compilation of official legal calibration certificates and technical reports.
- Obtain and maintain SANAS Technical Signatory Status.
- Maintenance of laboratory quality system and good laboratory practice.
- Professional registration will be required and maintaining such registration status, i.e., MetCert, ECSA.

We are looking for a dynamic, positive-thinking individual who is proactive and has analytical problem-solving abilities. He/she should be a dynamic self-starter requiring little supervision. A unique individual with a hands-on approach and the ability to understand complex technical systems is desired. Good communication and people skills are essential. Excellent writing skills and fluency in English is required. The candidate should have the ability to work both as part of a team and independently. This position is set within a unique technical environment and requires a person who can combine the responsibility of routine calibrations with development activities for improved measurement systems.

Please note:

NMISA subscribes to and applies the principles prescribed by the Employment Equity Act. Preference will be given to candidates who meet the requirements and who will add to the cultural and gender diversity of the organisation. Interested and suitably qualified persons may forward all supporting documentation required (updated CV, certified educational qualifications and certified ID.) when applying for the position email NMISA Human Resource at careers@nmisa.org

Only candidates with all supporting documents will be considered for the position.

Clearly indicate which position you are applying for. Closing date for applications: **13 April 2026**

People with disabilities are encouraged to apply. Correspondence will be limited to short-listed candidates only. National Metrology Institute of South Africa reserves the right not to appoint. By applying for this position at the NMISA, the applicant understands, consents, and agrees that the NMISA may solicit a credit and criminal report from a registered credit bureau and/or the relevant authority in relation to the position that require trust and honesty and/or entails the handling of cash or finances and may also verify the applicant's educational qualifications and employment history. You voluntarily give NMISA consent to process your personal information, and all the applications will be processed in accordance with the Protection of Personal Information Act 4 of 2013 (POPIA).