

SCIENTIST: TEMPERATURE AND HUMIDITY

Salary Range R 474 888,96 to R558 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 under the Measurement Unit and Measurement Standards Act, No. 18 of 2006. In accordance with this Act, NMISA is mandated to promote for the use of the International System of Units (the SI) and other recognised measurement units within South Africa. It is responsible to maintain national measurement standards (NMS) and to ensure their international comparability. For more information, please visit www.nmisa.org

THE POSITION:

This role involves maintaining, researching, and developing temperature measurement standards, and ensuring the dissemination of traceability from these standards to industry. The position directly supports South African trade by enabling accurate and internationally aligned temperature measurements

QUALIFICATIONS AND EXPERIENCE:

- BSc Honours degree in Physics, or B Tech/Post graduate Diploma, B Eng/BSc Eng Mechanical or Electrical Engineering.
- Minimum of three years' work experience in a laboratory/technical environment (temperature, humidity or metrology experience will be an added advantage)
- Solid understanding of the realisation and maintenance of national measurement standards and associated systems within the metrology domain.
- Proven track record of delivering high-quality customer service, particularly in the calibration and measurement of industrial equipment. Demonstrated ability to conceive, plan, and execute complex multi-year research projects, supported by a strong record of research outputs.
- Experience in general programming, laboratory automation and scientific simulation software.
- Experience in analysis of data analysis, including applying corrections based on physical principles and statistical methods.
- Strong scientific communication skills, with the ability to construct sound, evidence-based arguments and critically evaluate the reliability of conclusions.
- Any experience in the following would be an added advantage: Prior experience in a metrology environment

A robust publication record in relevant scientific fields. International networking experience within the scientific or metrology community. Hands-on experience with temperature and humidity measurement systems, familiarity with Quality Management Systems, particularly ISO/IEC 17025 Knowledge of the Guide to the Expression of Uncertainty in Measurement (GUM) and the principles of measurement uncertainty estimation

RESPONSIBILITIES:

- Maintain existing temperature and humidity measurement standards in accordance with national and international metrology practices.
- Disseminate traceability and measurement accuracy to industry through calibration services.
- Research, design, develop implement and test new measurement standards and systems.

- Collaborate on an international level with other national metrology institutes and participate in international comparisons relevant to the field.
- Liaise with local customers, stakeholders, and tertiary institutions (both local and international) on research and technical matters.
- Present technical papers at workshops and conferences and publish in local or international peer-reviewed journals.
- Provide technical consultancy and guidance to customers, contributing to knowledge transfer and capacity building in industry.
- Offer technical leadership within the temperature laboratory and contribute to strategic planning.
- Mentor and train junior metrologists and students.
- Participate in NMISA-wide technical forums, promoting cross-functional communication and knowledge sharing.
- Provide scientific and technical support to NMISA management.
- Contribute to laboratory planning, including budgeting, capital expenditure, and financial system inputs relevant to assigned responsibilities.
- Ensure compliance with NMISA's Total Quality Management System (TQMS) and ISO/IEC 17025, maintaining consistency and effectiveness in laboratory processes.

PERSON SPECIFICATION

The successful candidate will demonstrate strong attention to detail, ensuring thoroughness and accuracy in completing work tasks. The role requires analytical thinking, with the ability to assess information logically and solve work-related problems effectively. The ideal candidate will show initiative, displaying a proactive attitude and a willingness to take on responsibilities and challenges. Persistence in overcoming obstacles, along with integrity, reliability, and a strong sense of responsibility, are essential traits. Independence is key to this role, requiring the ability to work autonomously, develop effective approaches, and rely on personal initiative to achieve objectives. The candidate should be motivated to set and pursue challenging achievement goals, and apply creativity and alternative thinking to generate innovative solutions to technical problems

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: **17 October 2025**. 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)