



# SAIRAC

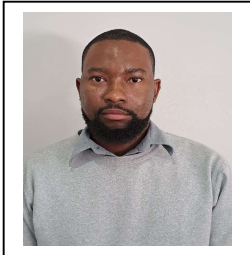
The South African Institute of Refrigeration and Air Conditioning

[www.sairac.co.za](http://www.sairac.co.za)

Dear SAIRAC members

You are invited to our Cape Town Centre Technical Talk on Tuesday, 9<sup>th</sup> September 2025.

**TOPIC: How to Trap, eliminate and dispose of viruses- presented by Thabo Mngadi**



Thabo Mngadi is a qualified Mechanical Engineer (NDip Mechanical Engineering) with extensive experience in the design, commissioning, and management of high-containment laboratories and specialized HVAC systems. He holds multiple professional certifications relevant to biosafety and laboratory engineering, including:

- BSL3 Commissioning & Recommissioning Certificate
- BSL3 Operations & Management Certificate
- Engineering for Biosafety Professional Certificate
- Biorisk Management Professional Certificate
- Camfil Foremarket University – Filtration and Air Quality Training
- Eagleson – HVAC Systems & Laboratory Design Training
- Specialized certifications in airflow, HEPA filter testing, classification, and biological safety cabinet (BSC) testing

Through these qualifications and hands-on project experience, Thabo has developed a strong background in the safe design, validation, and management of laboratory environments. His expertise lies in applying engineering controls to biosafety principles, ensuring effective containment, air cleanliness, and virus elimination strategies.

This technical talk will provide an in-depth look at **Bag-In Bag-Out (BIBO) filtration systems**, which are critical for safely trapping, containing, and disposing of hazardous airborne contaminants, including viruses. The presentation will cover the design principles, operation, and maintenance of BIBO units, as well as their application in high-containment laboratories, healthcare facilities, and pharmaceutical environments. Practical insights from real-world BSL3 laboratory projects will also be shared.

**Who should attend:**

- HVAC engineers and technicians working with high-containment facilities
- Laboratory designers, managers, and biosafety officers
- Facility managers in healthcare, research, and pharmaceutical industries
- Professionals seeking to strengthen their understanding of filtration and biosafety engineering

**Attendees will gain:**

- A clear understanding of BIBO filtration systems and their role in biosafety
- Knowledge of correct design, installation, and testing procedures
- Insights into safe filter replacement and disposal practices
- Best practices for ensuring system integrity, compliance, and personnel safety

Venue: Parow Golf Club – Frans Conradie Road - Parow

Date & Time: 9 September 2025 @ 18h00 for 18h30

RSVP required by no later than: 12h00 on 8 September 2025

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