



SAIRAC

South African Institute for Refrigeration and Airconditioning

www.sairac.co.za

JOHANNESBURG REGION

COURSES 2024 - FANS COURSE

SAIRAC Johannesburg region is pleased to announce the 2nd Course for 2024.

The skills gap found in industry is well known and much talked about. Coupled to the training is an opportunity for senior people in industry who may be interested to share their experience with the younger generation. Or possibly just a passion to become involved in training and offer their expertise and experience in these evening classes.

The courses are aimed at the gap that exists between the artisan / technician level and engineers.

Should you be interested in taking up the challenge and be involved with the presentation of any of the courses please contact Mariet Pieterse - 082 772 1694 / johannesburgsecretary@sairac.co.za. In order to bring some of the vast experience out in industry back into training, Sairac is on the look out for senior members of industry to present SAIRAC courses.

It will be an online zoom course.

Mariet Pieterse - 082 772 1694 / johannesburgsecretary@sairac.co.za are managing the bookings and can be contacted with regards to general queries, booking queries, confirmation and availability.

SAIRAC Johannesburg Region Presents: FANS



This course will be presented by Francois Schoombie he holds a N.Dipl. Mech Eng. TUT (Tswane University of Technology) 2001. Studied Mechanical Engineering at the then Pretoria Technikon, started with practical training in the HVAC market and is still very much hooked.
Current position at Ebmpapst South Africa as Technical Manager.

Course Name: FANS

Course Outcomes: On completion of this course, you should be able to;

Mechanics: Part 1 – Static (mass, force, lever), Kinematics (Velocity, rotation, speed, torque), dynamic (work, energy, power, efficiency)

Part 2 – Difference External vs. Internal rotor motor, Test reports (torque characteristics AC-motors), Understand balance & balance quality grade.

Fluid Mechanics: Theory – physical quantities & SI units, Bernoulli equation, law of continuity, flow resistance, interrelation between physical quantities (air flow, pressure, performance)

Fluidic flow engines – types, characteristics & features, operating performance (centrifugal, axial, diagonal, tangential)

Operating behaviour – fan operation in series & parallel + examples

Mounting examples and possible disturbances – mounting conditions & relevant disturbance variables

Measurement and test engineering – different measuring methods (air flow, pressure and performance), evaluate results. Types of test rigs (AMCA/DIN/EN/ISO)

Operating behaviour exercises – handle formulas for different characteristics under conditions of: single fan, speed changes, changes of installation characteristics, parallel & serial mounting of fans, possibilities to achieve recommended duty points.

Acoustics: Part 1 – sound frequencies and determining factors with fans, effect of sound on human hearing, frequency analysis of noise, octave band, effects of several distances, effects number of sources of sound, unwanted noise.

Venue: Online zoom course

Duration: 3 evenings

Dates: 07, 14 & 21 May 2024

Time: 18h00 till 21h00

**Cost: MEMBERS R1752.00
NON-MEMBERS R2268.00**

The formula of having selected professionals presenting within their specific field of expertise adds value to the SAIRAC training. In this sense the SAIRAC courses are unique.

Please note: SAIRAC courses are very popular with limited space available, please book early.

See attached: Enrolment Form