

PROGRAM ABSTRACT

Psychrometry for AC Industry

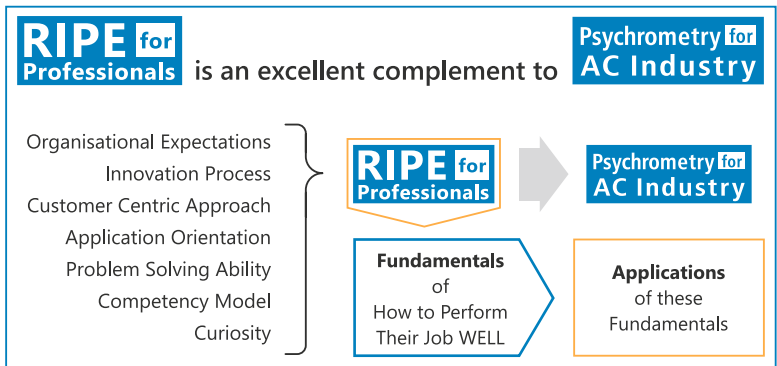


AWAKENS THE ENGINEER IN YOU

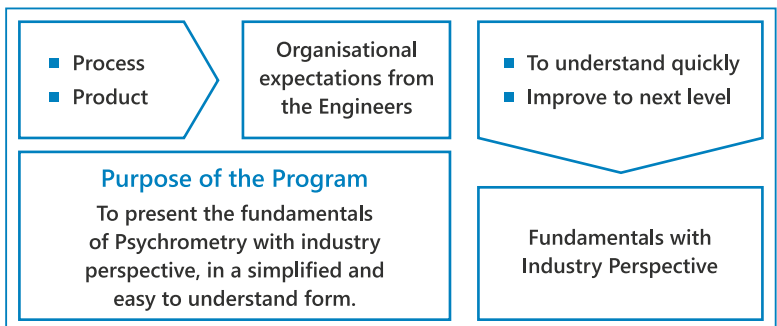
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Psychrometry for AC Industry, is a one-day training program conducted by R&AC Academy. This program is designed for the young engineering professionals of Airconditioning industry, irrespective of the functional department, they are associated with. The content is designed and presented completely with industry perspective, i.e. how the engineers will interpret their knowledge, fundamentals etc, in order to solve the problem faced by the organization. The participants gain a deeper and a finer understanding about psychrometry, which will help them to put their minds clearly and convincingly to their colleagues, seniors etc and to their customers, as well.



The purpose of this program is to train the engineering professionals of Airconditioning field, who are in their formative years, i.e. zero to less than 10 years of experience. Typically, the organisations have two very basic expectations from its engineers – 1) To quickly understand about the existing products or processes and then 2) To improve the same to the next level. To achieve this, the engineers must have the ability to interpret the fundamentals from the perspective of meeting the organizational needs. The **Psychrometry for AC Industry** program is designed to align the participants towards this orientation.



The content is presented with certain graphics which are built exclusively for this program and with some simple situations from the field, so that the participants are enabled to gain a crystal-clear understanding about psychrometry.

This program is designed to give the following benefits to the participants:

- Enlighten the participants about certain fundamentals of psychrometry, which are to be known once, but will remain forever. Example: Why the psychrometric properties are defined per kg of dry air, not per kg of moist air.
- Provide simplified explanation about certain terms of psychrometry. Example: Apparatus Dew Point, RSHF, GSHF, ESHF etc
- Build the ability to do hand calculations and making the participants to understand the importance of the same.
- Make them understand the phenomena behind certain psychrometric processes. Example: Achievable processes with Air washers etc
- Give them an awareness about the process of controlling the performance of products or systems, at our required level – The Control Strategy.
- Enlighten them about the Technology Innovation Process using the evolution process of VRV / VRF Compressors.

This program firmly and effectively connects the participants to psychrometry at its fundamentals level, thereby helping them not only to do well in their jobs but also to contribute towards advancement in engineering and technology of Airconditioning field.

1. Introduction to Psychrometry
2. Psychrometric Properties
3. Hand calculations on Psychrometric Properties
4. Psychrometric Chart
5. Psychrometric Processes
6. Air Washers
7. Applied Psychrometry
 - Mixing of Air Streams
 - Psychrometric Heat Loads
 - Bypass Factor
 - Sensible Heat Factor (SHF)
 - Apparatus Dew Point
 - Heat load Calculations
8. Summer Air Conditioning
 - With 100% Recirculation Air
 - With Ventilation Air & Zero BPF
 - With Ventilation Air & with $BPF=X$
9. Control Strategy for Products / Systems
10. Applications
 - Technology Innovation Process - VRV / VRF Compressors
 - AC System for Commercial Complex
 - From Products to Systems - Central AC System