

# WELCOME



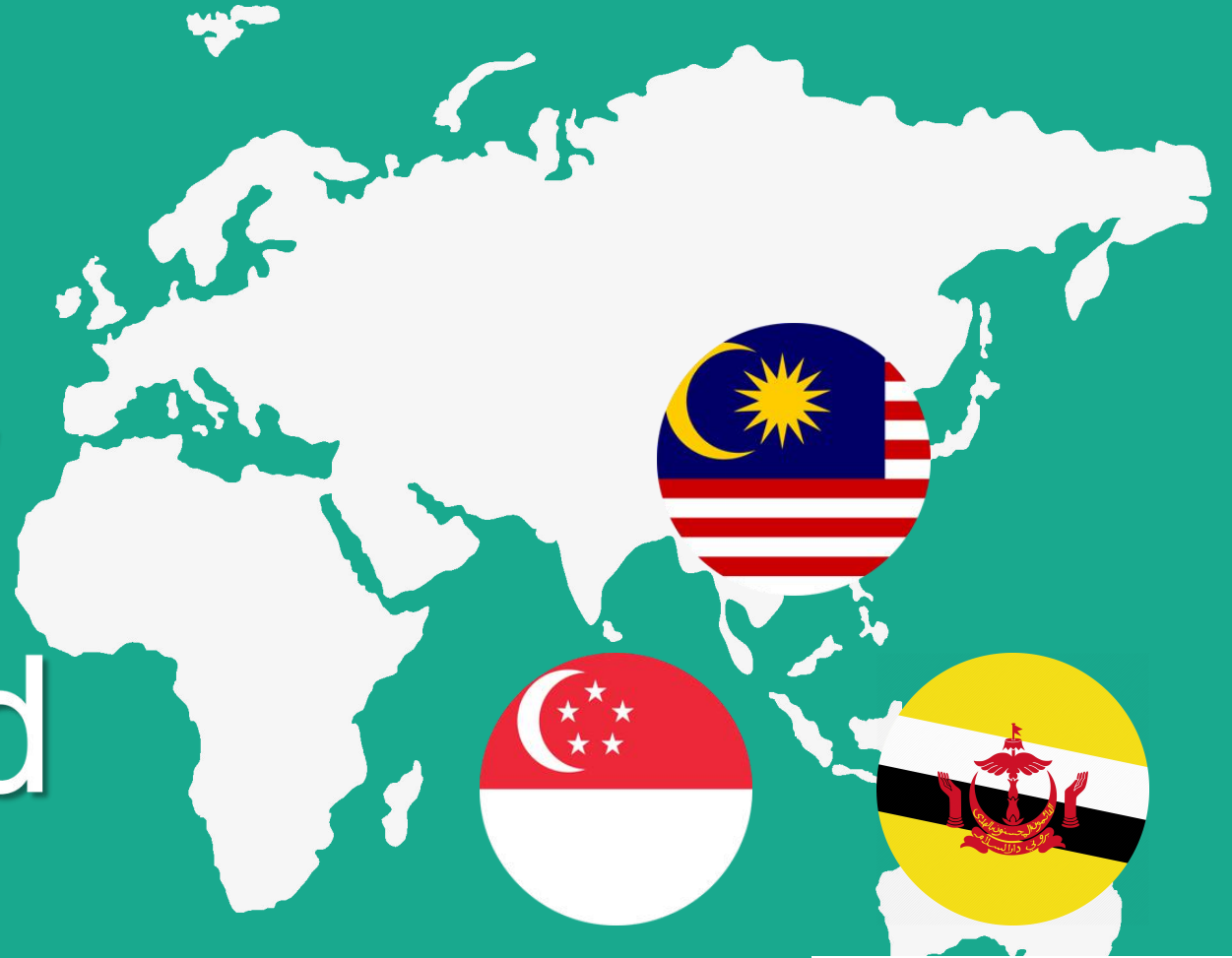
## science

## start

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# We Are Sole Distributor of Prihoda Brand Fabric Duct



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# OVERVIEW

- Fabric duct working principle
- Fabric duct solutions
- Comparison between Rigid & Fabric duct
- Reference Projects

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# What is Fabric Duct ?



1. Fabric duct is a combination of ducting & diffuser that **transports the cool air.**

2. Air enters the space by **permeating through the fabric.**



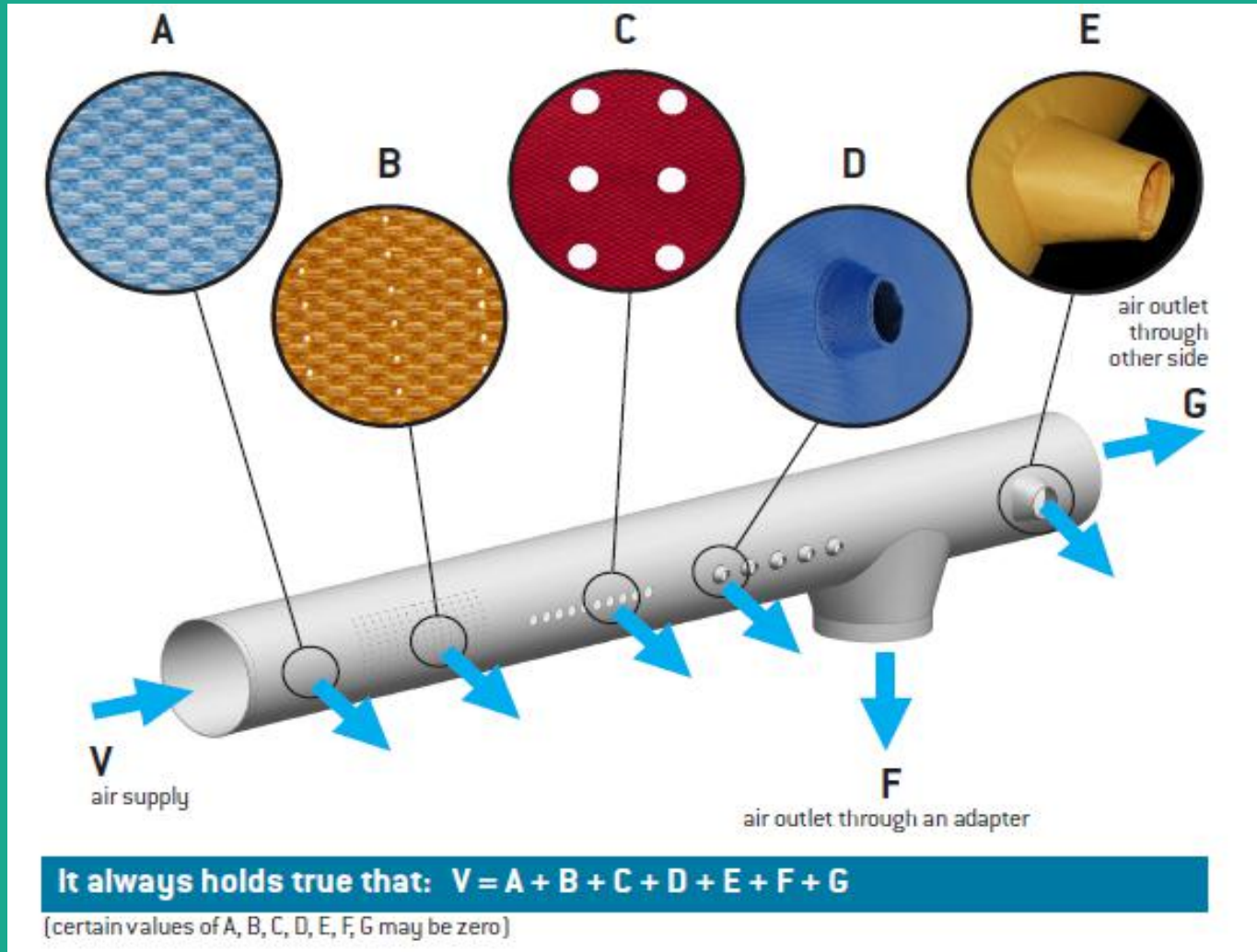
3. Air also enters the space through **Customized Perforations** (to achieve optimal air distribution).

4. **Equipment sizing** as per usual.

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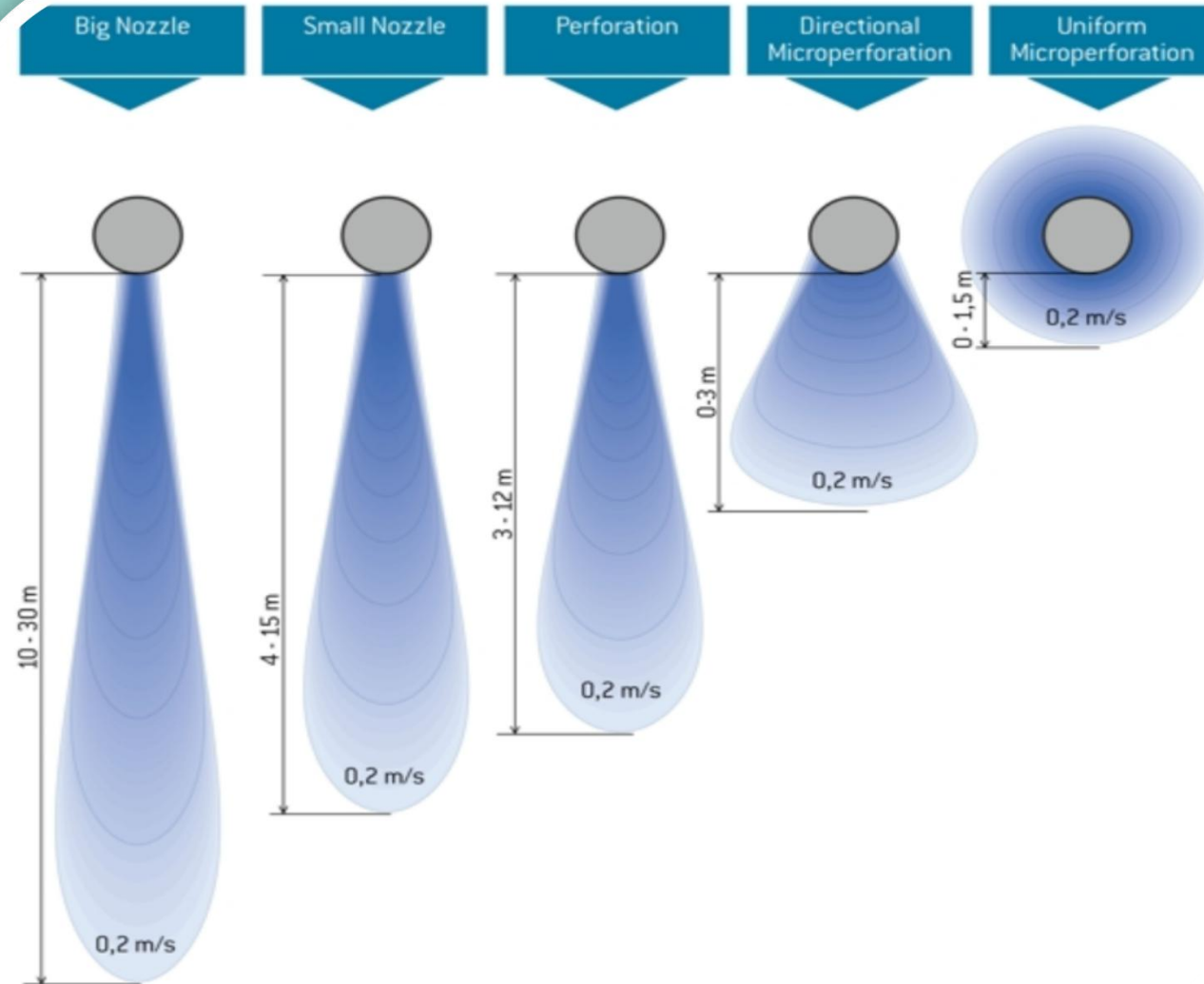
# Air Outlet From Fabric Duct



- A – Permeable fabric material
- B – Microperforations
- C – Perforations
- D – Small fabric nozzles
- E – Big fabric nozzles

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# Air Flow Travel Distance

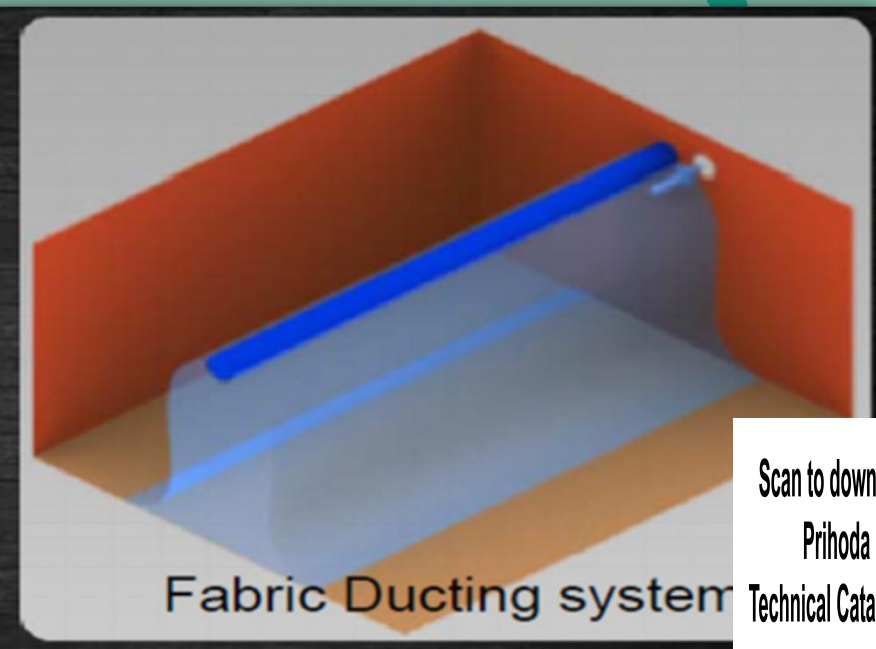
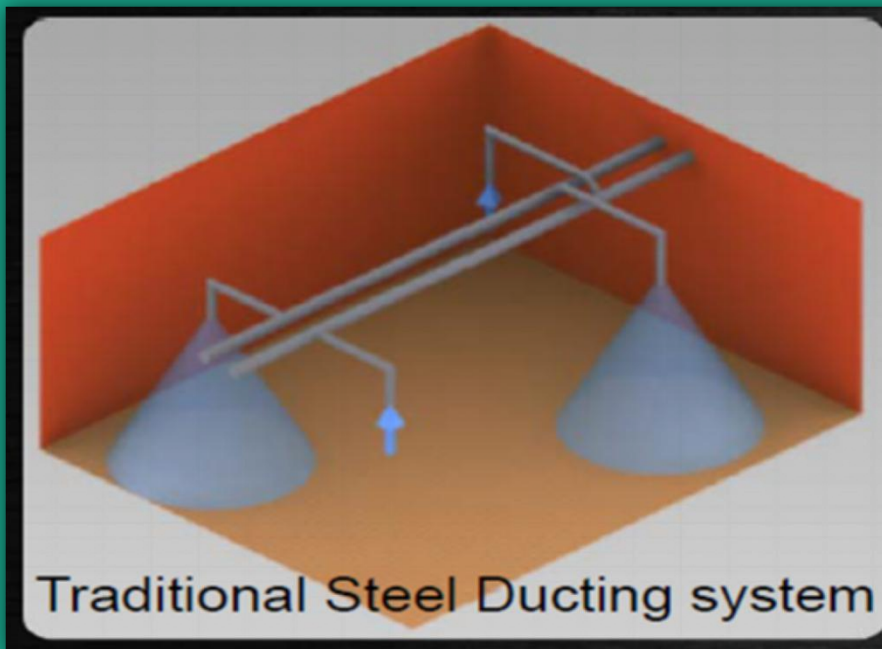
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# How do we do it?

1. Increase discharge area.
2. Reduce discharge velocity.
3. Natural heat movement.

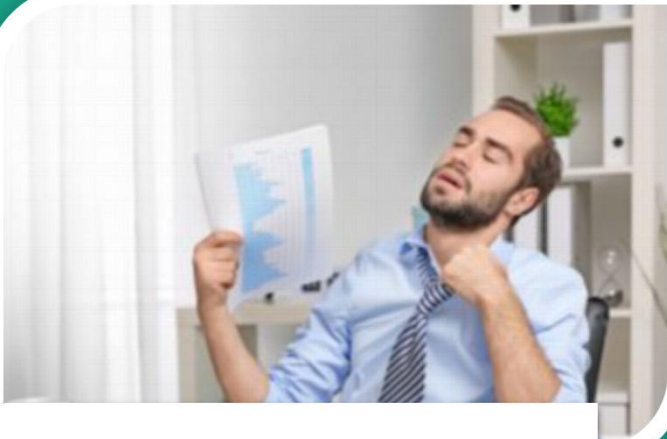


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# Major Problems in Cool Air Distribution



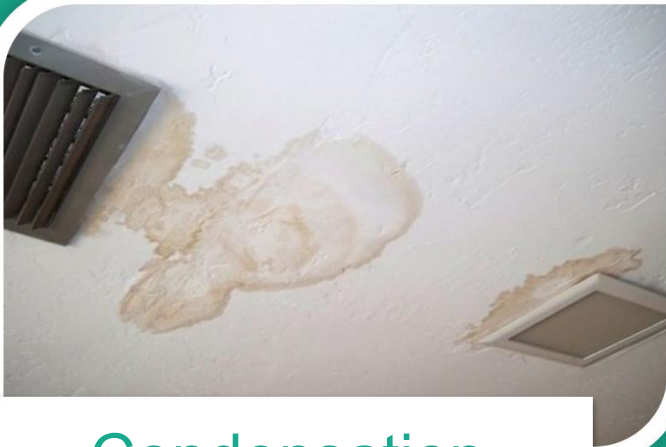
Bad air distribution



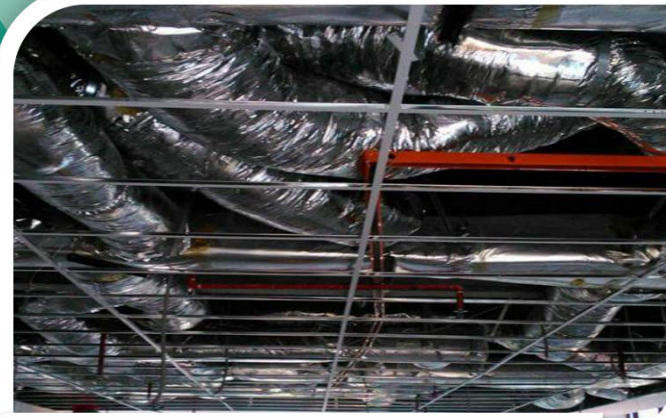
Heavy weight



Bad Hygiene



Condensation

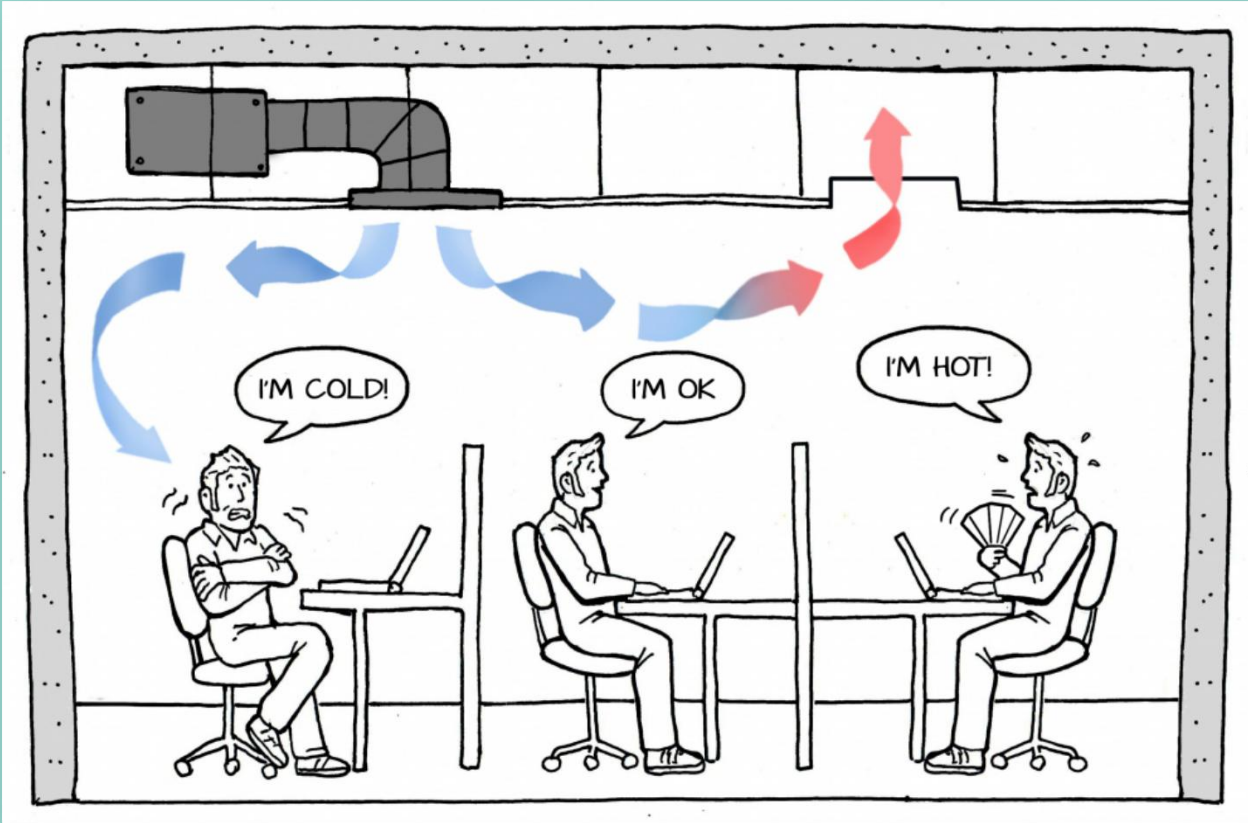


Bad appearances

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# Key Issue 1: Bad Air Distribution



Have you experiencing ?

Work in uncomfortable workspace that make you lose focus and become unproductive due to **UNEVEN DISTRIBUTION** of your air conditioning system ?



# Why Bad Air Distribution ?



Design error



Installation fault



Poor duct balancing & supervision

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# Problem Cause by Bad Air Distribution ?

- ✓ Cold air draft
- ✓ Short circuit (Dead zone)
- ✓ Discomfort room condition
- ✓ Extra cooling load
- ✓ Oversized AC unit
- ✓ High electricity bills
- ✓ High maintenance cost
- ✓ Noisy sound
- ✓ Reduce productivity
- ✓ Unhappy client
- ✓ Lost client trust
- ✓ Bad branding image
- ✓ Drop building value
- ✓ Loss profit
- ✓ Stress

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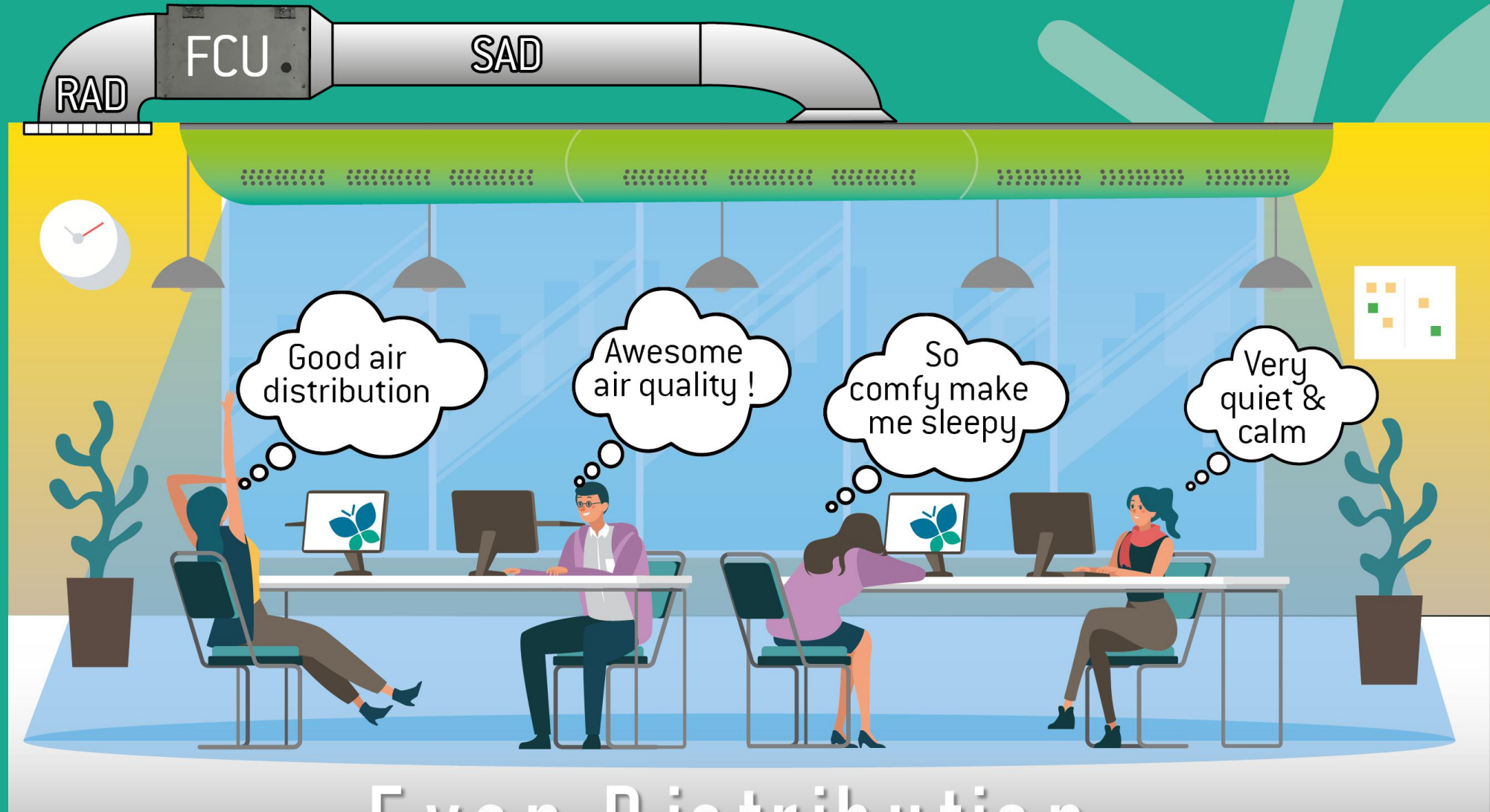
# How fabric duct solve the issue ?



Spot Cooling

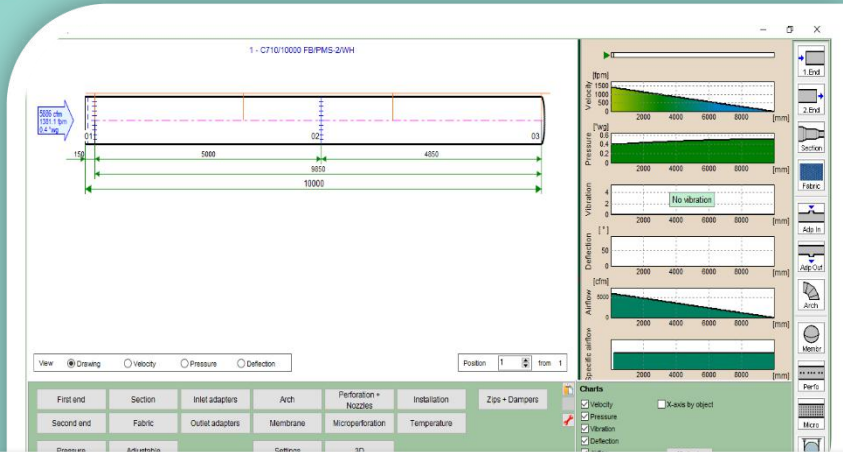


# How fabric duct solve the issue ?

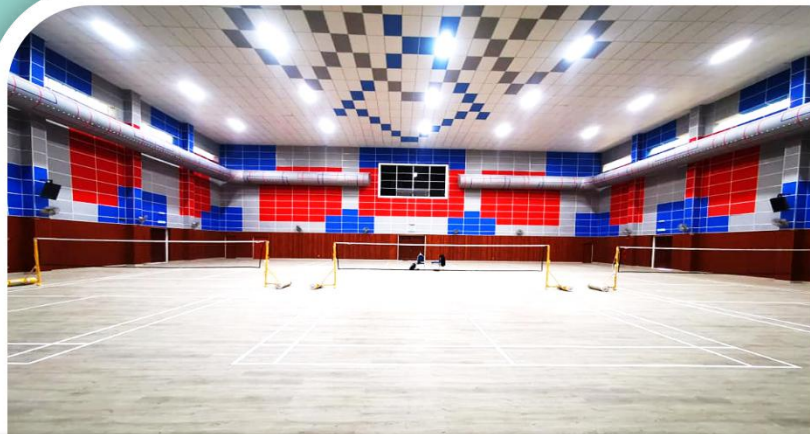


## Even Distribution

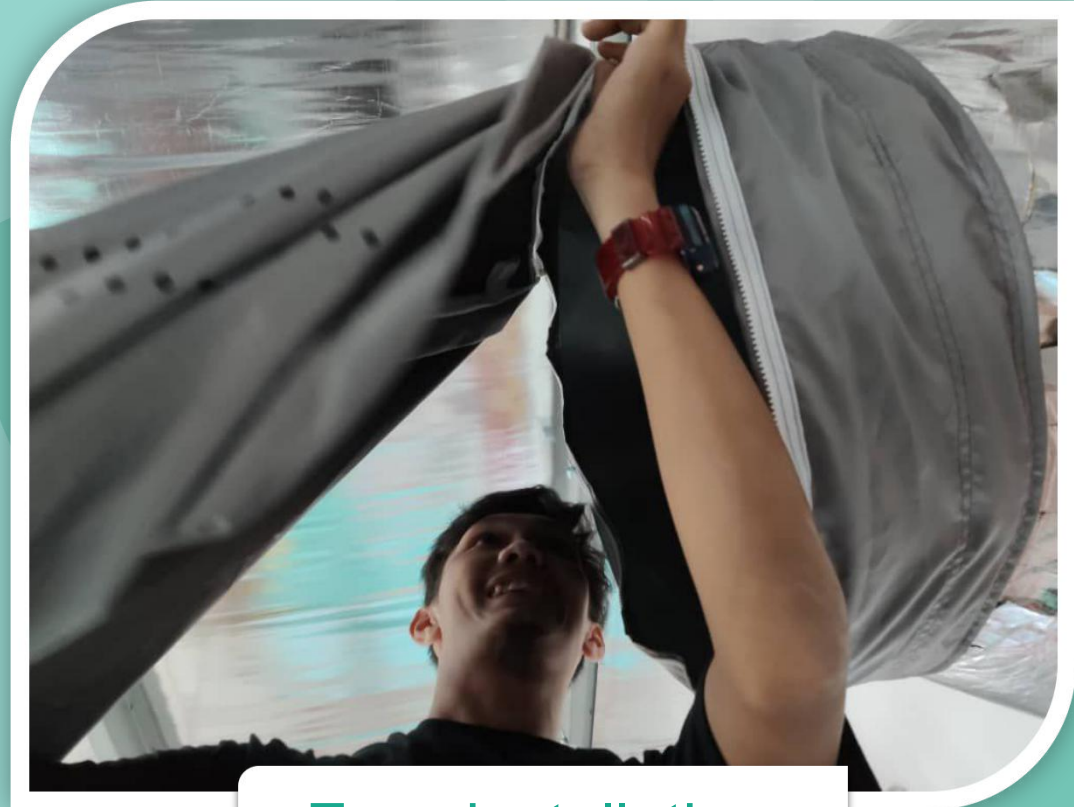




Detail design software analysis

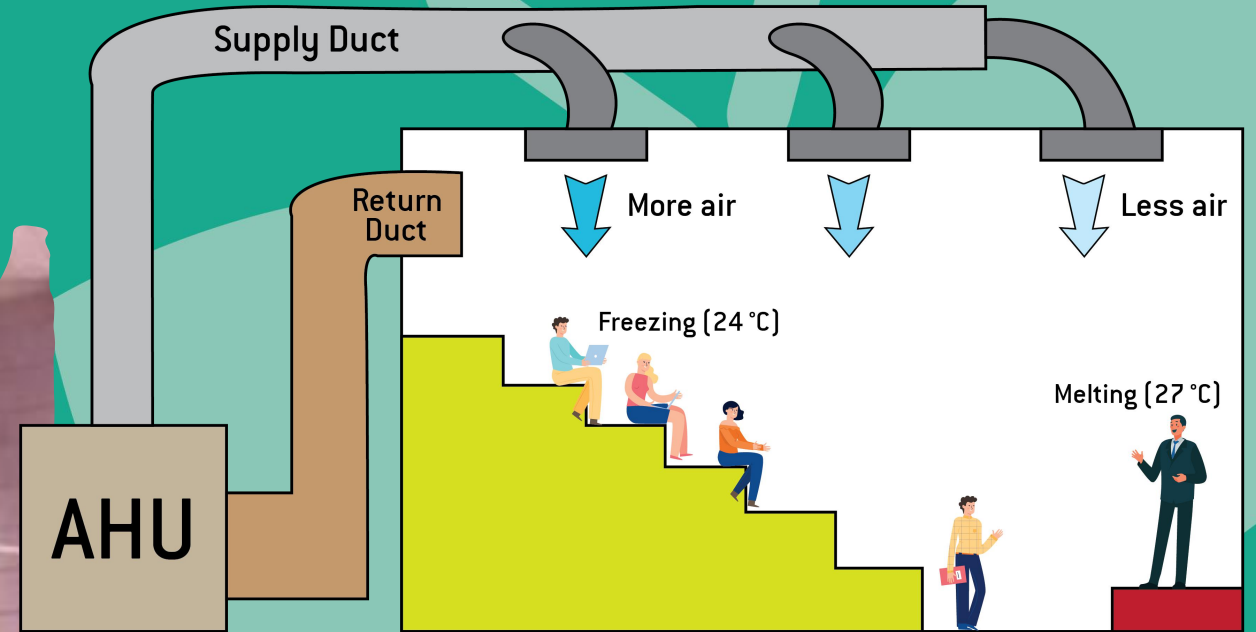


Simplify design



Easy installation

# Lecture Hall UiTM Puncak Alam

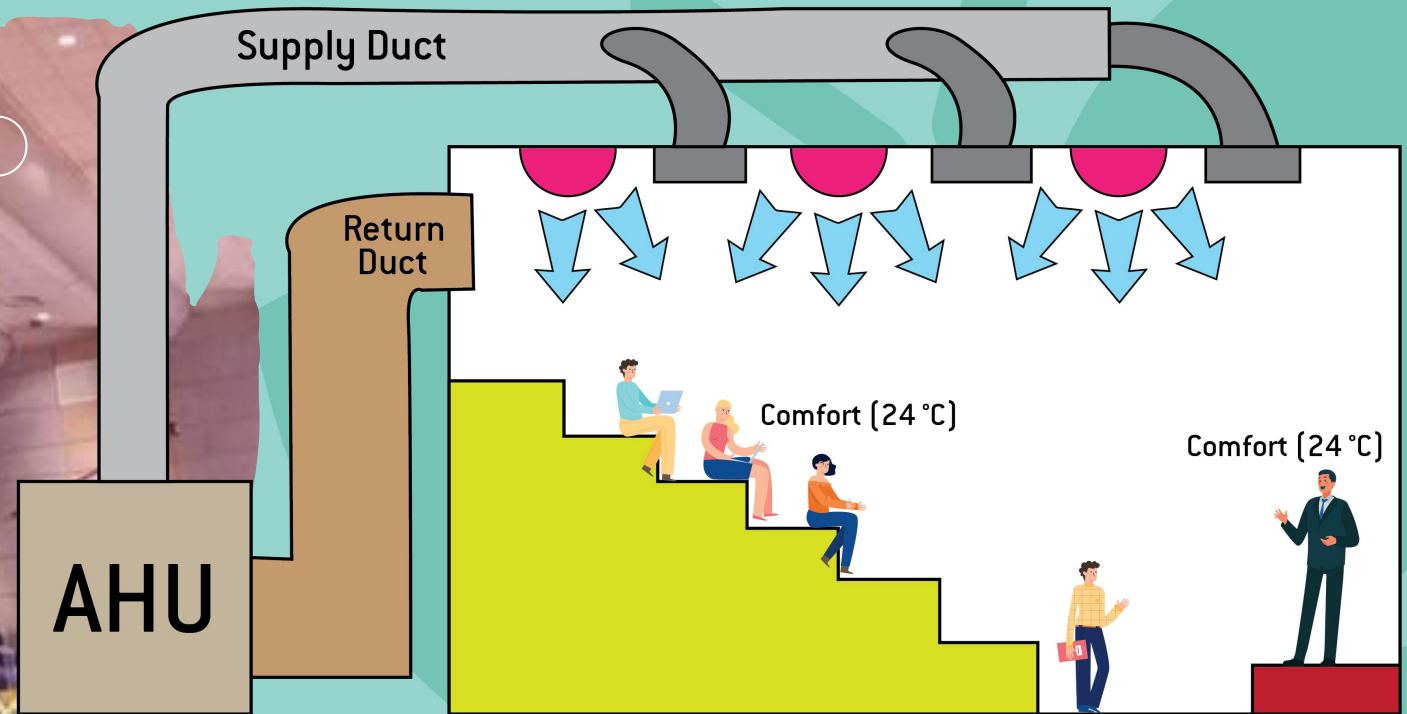


- 60HP AHU at the back side
- Temperature hot at the stage area
- Student near to AHU felt cold draft





# Lecture Hall UiTM Puncak Alam

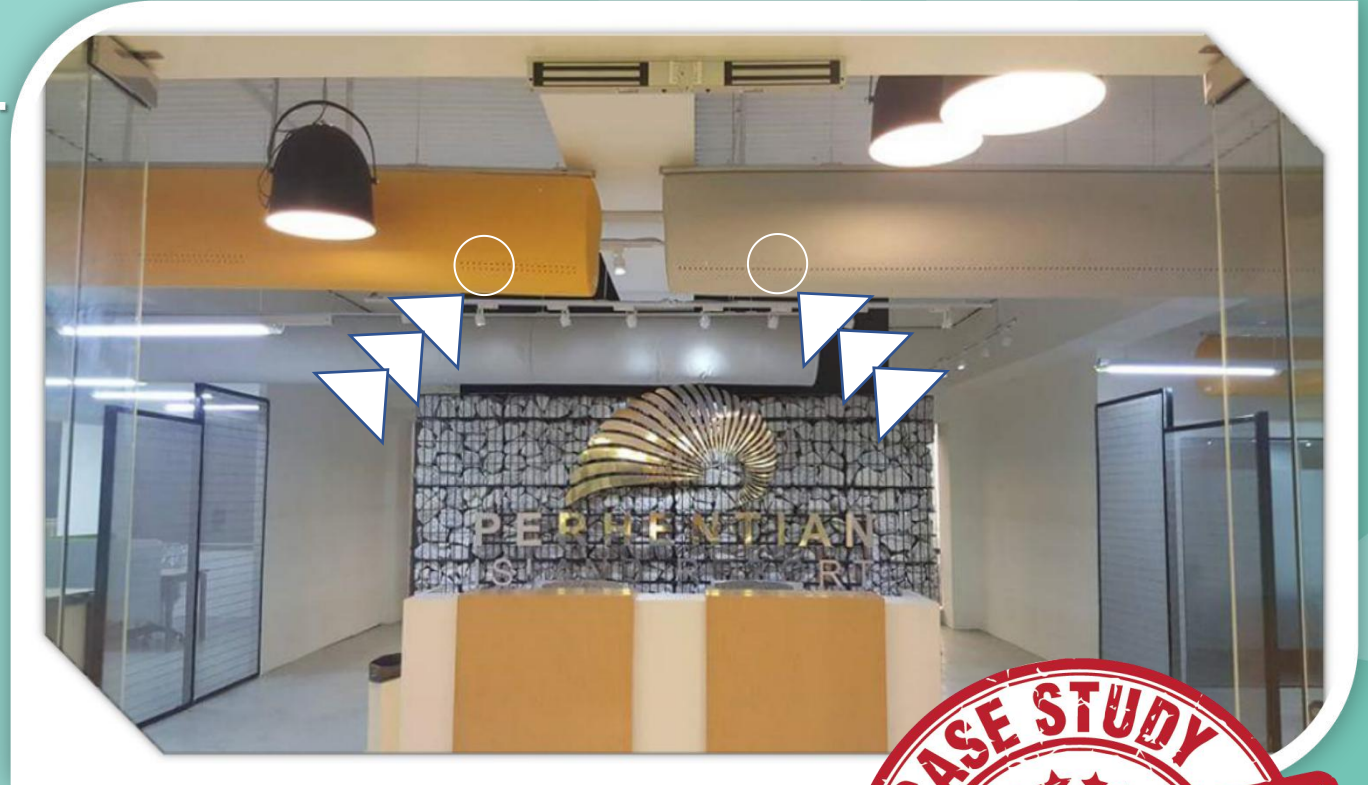


Cooling Load Factor : 40Btu/hr/ft<sup>2</sup>  
3 unit 10 HP Packaged DX System  
Achievement : Temperature during TnC is 20°C  
**Result : No more complaint from Lecturer**

# Menara KH, Kuala Lumpur

- Office makeover/ upgrade.
- Existing conventional metal ducting change to fabric ducting system.

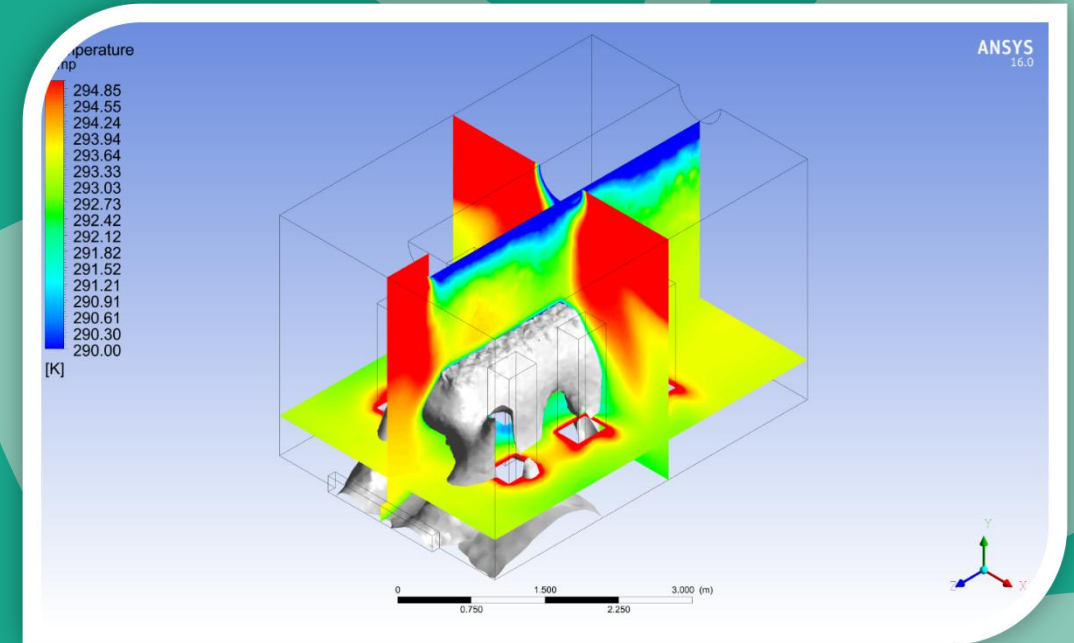
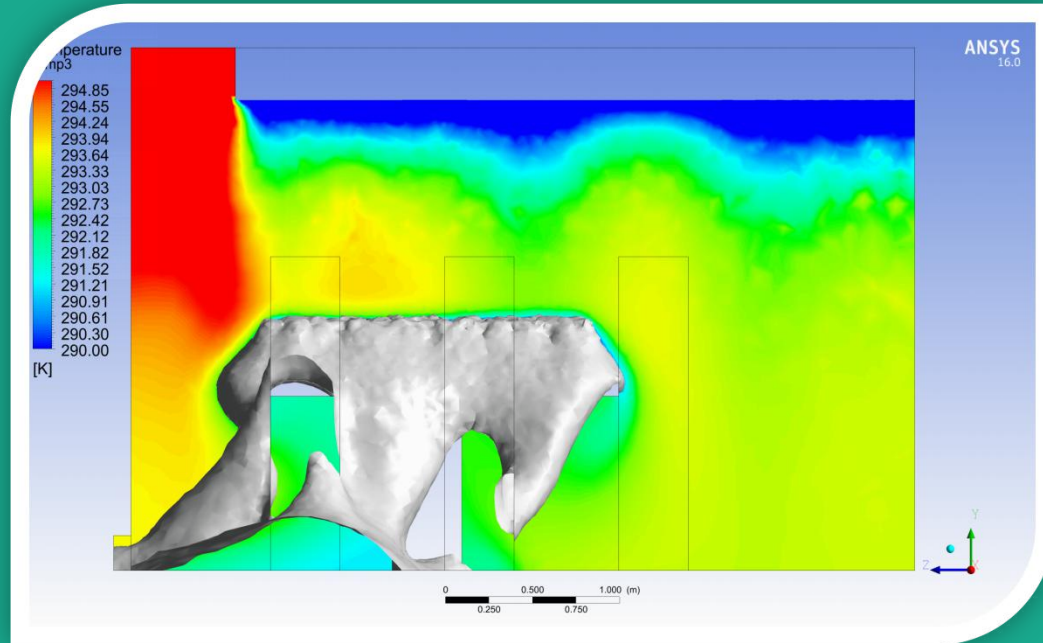
Monthly electricity bills  
from **RM12,000**  
turns to **RM5,000**  
(save up to 60%)





# CFD Simulation

## (Velocity & Temperature Flow Pattern)



## OPERATION THEATRE

### Critical Air Distribution Condition

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## Key Issue 2: Duct Condensation



After 10 years of operation, the insulation got decayed, condensation process happened and **DAMAGE** your ceiling ?

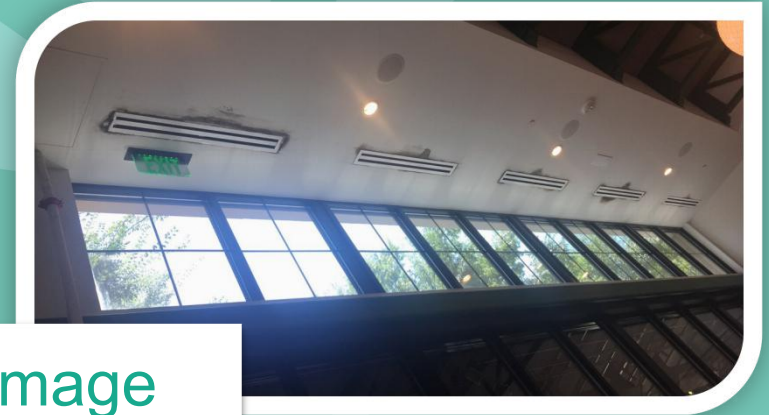
Have you experience it ?



# Common Scenarios for Condensation Issue



Ceiling Damage



Wet Diffuser & Floor



Growth of Fungi

# Masjid Puncak Alam

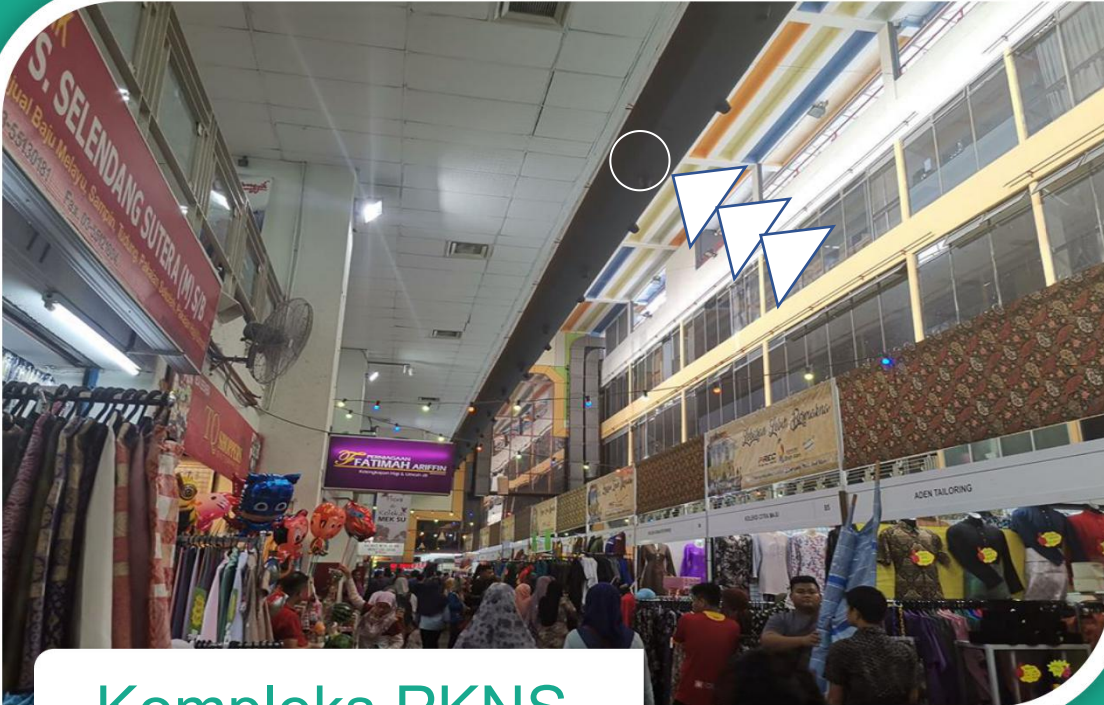
- Open Space (No barrier/partition)
- 2 unit of 90HP Air Cooled DX System with double cooling coils

No Condensation at duct, no insulation required, even supply air temperature away below dew point.

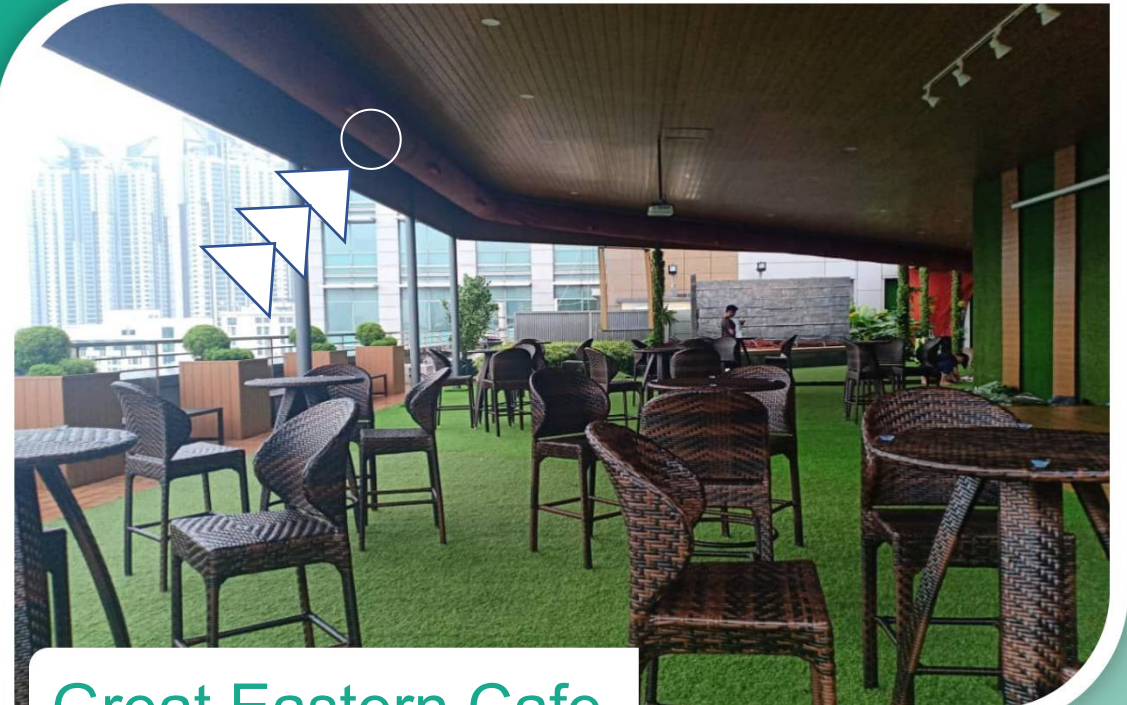




# Permeable Fabric Duct Avoid Condensation



Kompleks PKNS



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# Key Issue 3: Heavy Weight

Take a long time to install ducting system in order to achieve due date because do not have **ENOUGH MAN POWER** and **SKILL WORKER** ?



Have you experience it ?



# Problems Cause by Heavy Weight?

- ✓ Need strong structure
- ✓ Required more man power
- ✓ Extra cost for structure
- ✓ Required lifting equipment
- ✓ Longer time to install
- ✓ Long shipment time
- ✓ Project delay
- ✓ Injury/accident possibilities
- ✓ High maintenance cost
- ✓ Need skills worker



# Audi Showroom Glenmarie

- Cooling Load Factor: 80Btu/hr/ft<sup>2</sup>
- 2 unit of 30HP Packaged DX System

No need high cost  
structure strengthening  
works.





# Key Issue 4: Bad Appearances



- ✓ Wasting Space
- ✓ Ceiling cost
- ✓ Interior touch up
- ✓ Bad Reputation
- ✓ Loss Profit

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# Menara KH, Kuala Lumpur



Save space



No ceiling needed



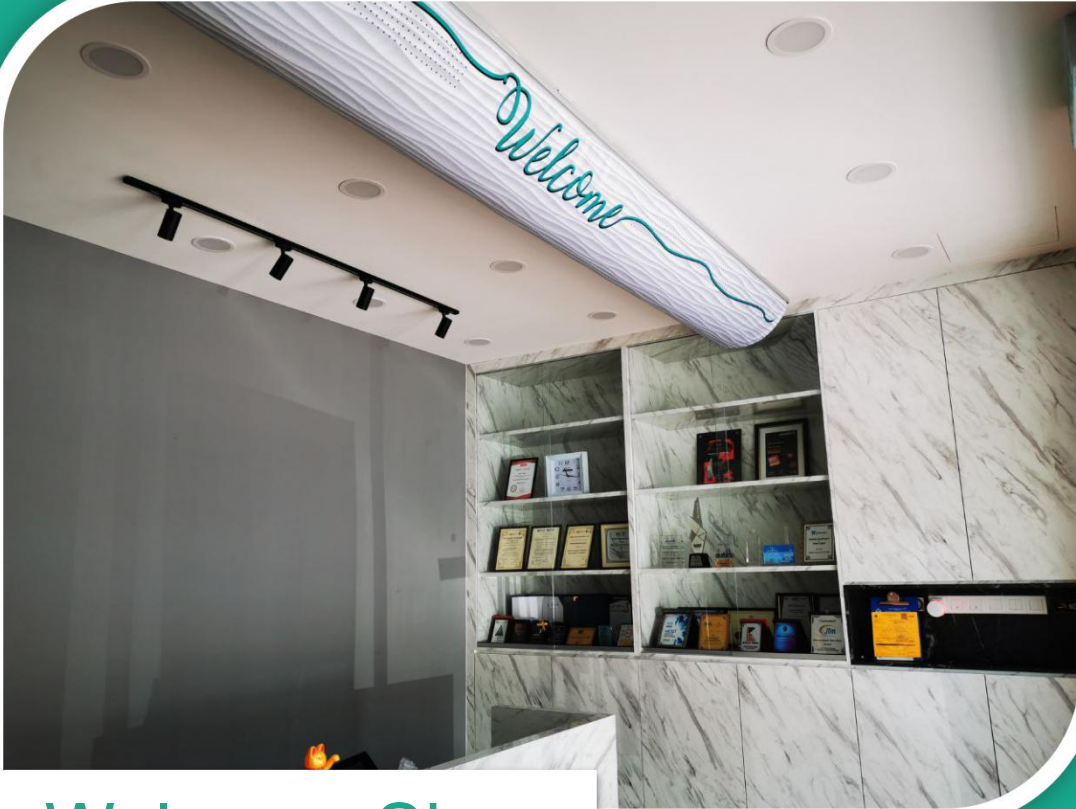
Good appearances



# Match with Interior Design



# Prihoda Art Printing



Welcome Sign



Branding



# Special Printing : Prihoda Art

## OPTION FOR



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 03-55251159  
 No 32, Jalan Anggenik Vanilla Z 31/Z,  
 Kota Kemuning, 40460 Shah Alam,  
 Selangor, Malaysia.

APPROVAL BY

NAME :  
 DATE :

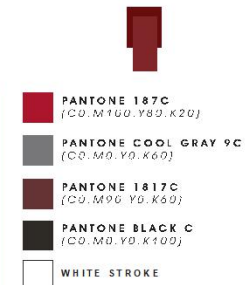
Project : KOLEJ POLY - TECH MARA

## Option 5

### Fabric



### Logo



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# Special Printing : Prihoda Art





**FABRIC  
DUCT**

**VS**

**METAL  
DUCT**



# Comparison



## G.I DUCT

- Spot cooling
- Noisy (high velocity)
- Required balancing
- Heavy (30 - 60kg/m<sup>2</sup>)
- High running cost
- Required Diffusers
- Difficult to clean
- On Site assembly & Waste
- Skill installer

## FABRIC DUCT

- ✓ Even distribution (Save cooling)
- ✓ Quite operation (Laminar Flow)
- ✓ Self balancing
- ✓ Light Weight 4 - 8kg/m<sup>2</sup>
- ✓ Low running cost
- ✓ No Diffusers (2 in 1)
- ✓ Easy to clean
- ✓ No any waste
- ✓ D.I.Y (Ready to install after trained)



# Project References



Hotel & Lobby

ECOWORLD  
INTERNATIONAL  
CREATING TOMORROW & BEYOND



ECOWORLD

ECO World Puncak Alam



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# ECO World Puncak Alam







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# Tamu Hotel Seminar Room



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# Living Room

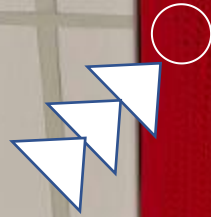






# Living Room





# Sales Office





# Best View Boutique Hotel



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# Project References



Hall & Auditorium





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**HELP University Subang**



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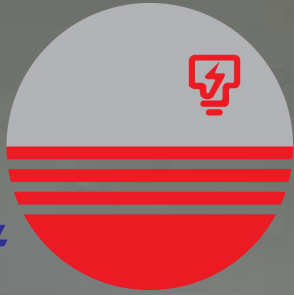


UiTM Shah Alam, Melati Hall



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**UNITEN Muadzam Shah, Kuantan**



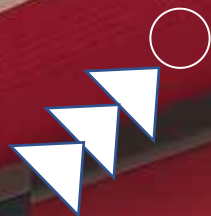
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# Syariah Court, Perak





# Bomba Cheras Hall







# Bomba Penang Hall







# Bomba Putrajaya Hall







# DBKL Batu Muda Hall





# Dato Onn Mosque Hall







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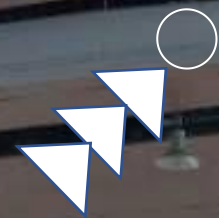


MPSJ Hall



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# Dewan DBKL Setiawangsa



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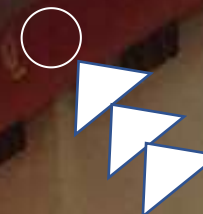
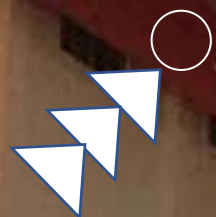


**KPTM Kuantan**



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# TUDM Kuantan Hall



Sunway College JB



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International School Kuala Lumpur



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# Terengganu Hall







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# Dewan Rakan Muda Kuala Pilah







USM



# USM Kubang Kerian Hall



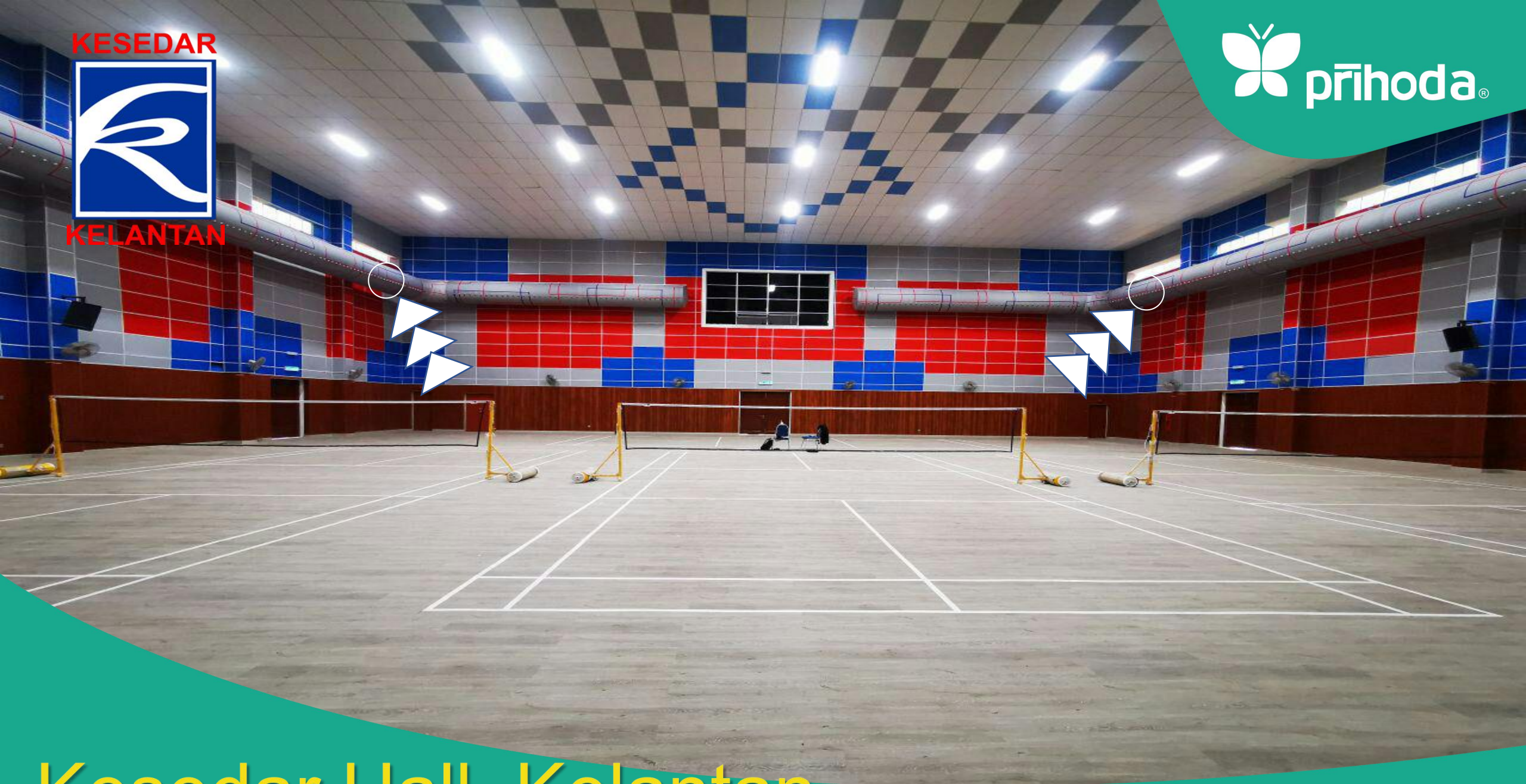
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KESEDAR



KELANTAN



# Kessedar Hall, Kelantan



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# Project References







# Masjid Puncak Alam





Masjid Glenmarie, Shah Alam



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# Surau Al Furqan, Putrajaya







# Masjid UiTM Shah Alam







# Surau SK Putri, Putrajaya







# Masjid Penjara Kajang







# Masjid Raja Uda, Klang







# Masjid Mak Cili, Terengganu







# Masjid Kota Raja, Klang





# Masjid Al Khairiyah, Gombak







# Masjid Al Mukhlisin, Cheras







# Masjid Al Falah, Bangi







# Masjid Kem Wardieburn, KL



# Project References



Office





# Consultant Office, JB







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MBPJ Office





Perhentian Island Resort Office



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# Perhentian Island Resort Office



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# MPAJ Meeting Room







Welcome

# Prihoda Malaysia Office



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# Prihoda Malaysia Office



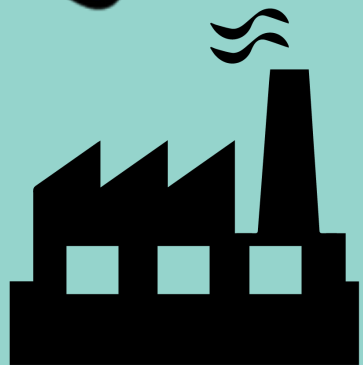
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# Prihoda Malaysia Office





# Project References



Factory & Warehouse



# KPJ Warehouse



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TKR Factory, Melaka



[www.prihodamalaysia.com](http://www.prihodamalaysia.com)





# Kayaku Factory







# Daikin Factory



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Pos Malaysia, Shah Alam



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# Pharmaniaga, Shah Alam





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Sony EMCS, Bangi



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# PTP Tanjung Pelepas





# Vivar Printing Factory





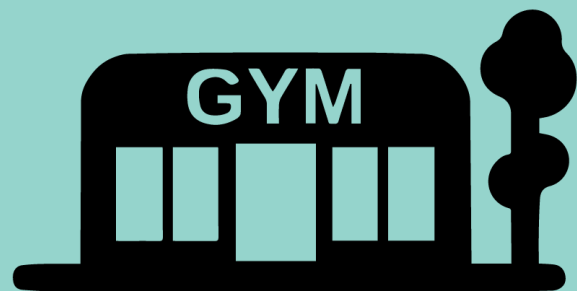


D'Food Halal Hub, Klang



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# Project References



Sports Centre





# Gym Miri, Sarawak







Stadium MPSJ



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THE CLUB

@ RIMBAYU



# Gym The Club, Rimbayu



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# MBSA



## Indoor Stadium, MBSA



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# Stadium Basketball, Larkin







# Indoor Stadium, Larkin





# Project References



Showroom



Audi



Audi, Glenmarie



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**HONDA**



**Honda, Melaka**



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# Zass Barbershop







ILP Ipoh







UNiKL MFI, Bangi





# Project References



Outlet/Store



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INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA  
يُونُثْ بَرَسِيَّتِي اِسْلَامُهُ اِنْتَا اِرْبَحِيَّتَا مِلِّيَّتَا  
Garden of Knowledge and Virtue



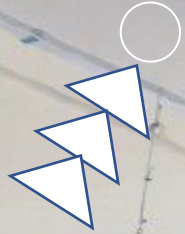
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**DECATHLON**



**Decathlon Shah Alam**



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**DECATHLON**



**Decathlon Armada Hotel, PJ**



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# Subang Airport





Kompleks PKNS, Shah Alam



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UTC Kelantan





Good Home, Brunei







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MALAYA



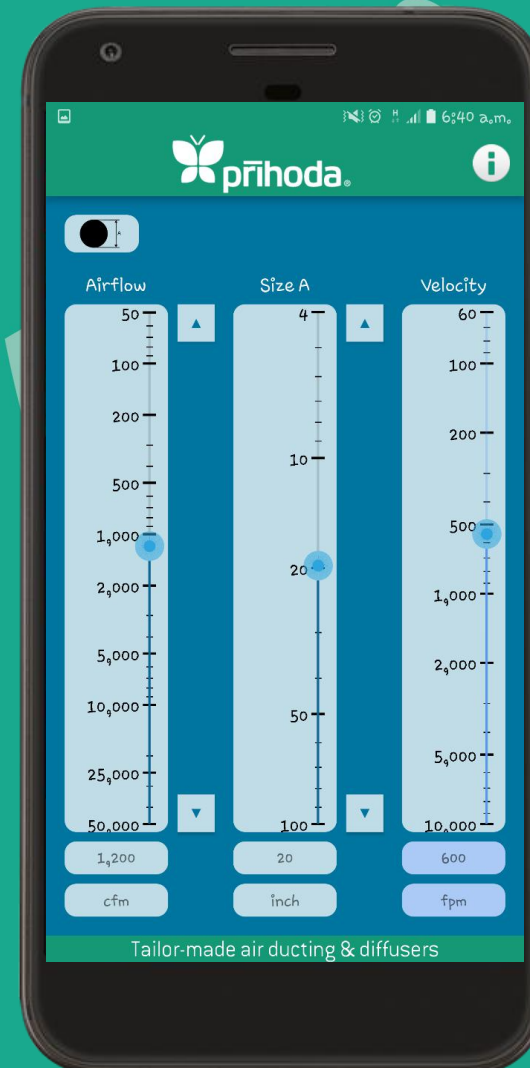
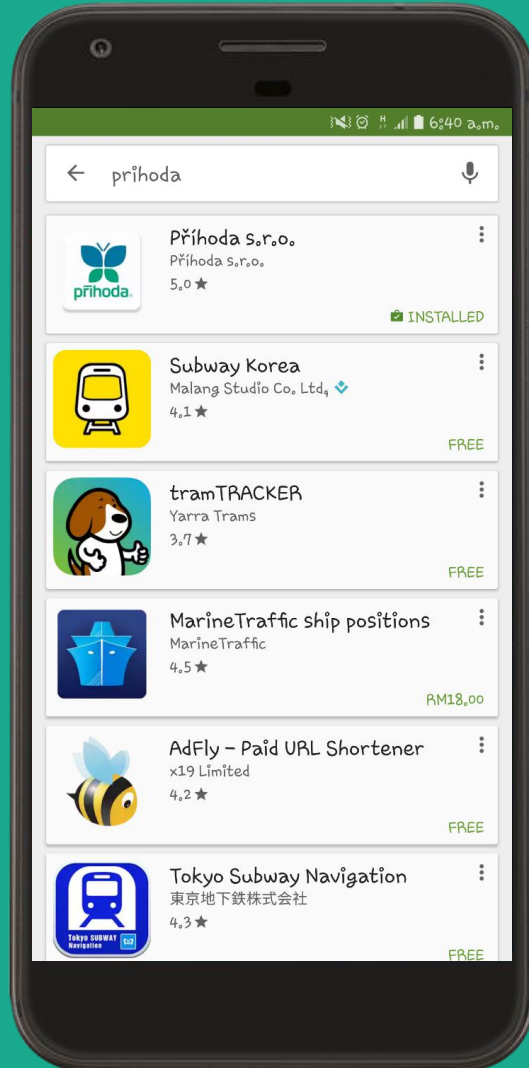
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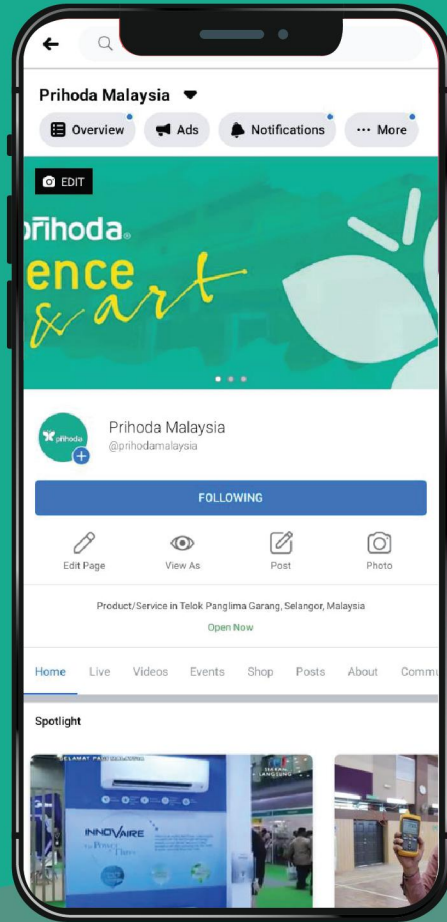
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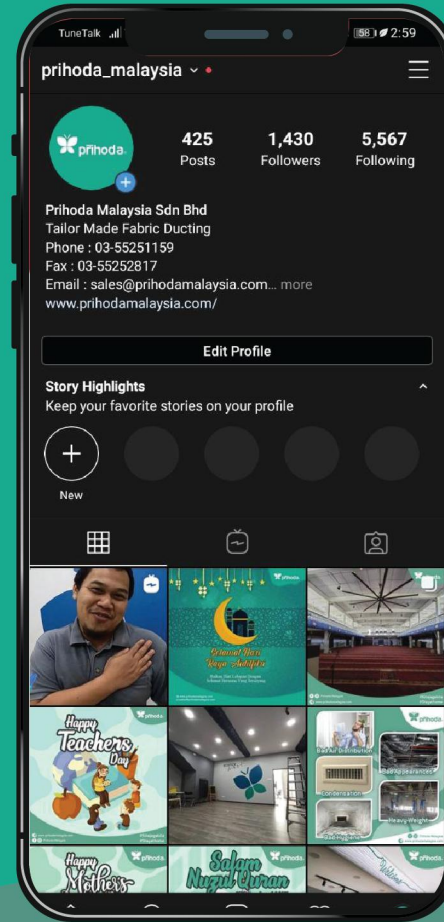
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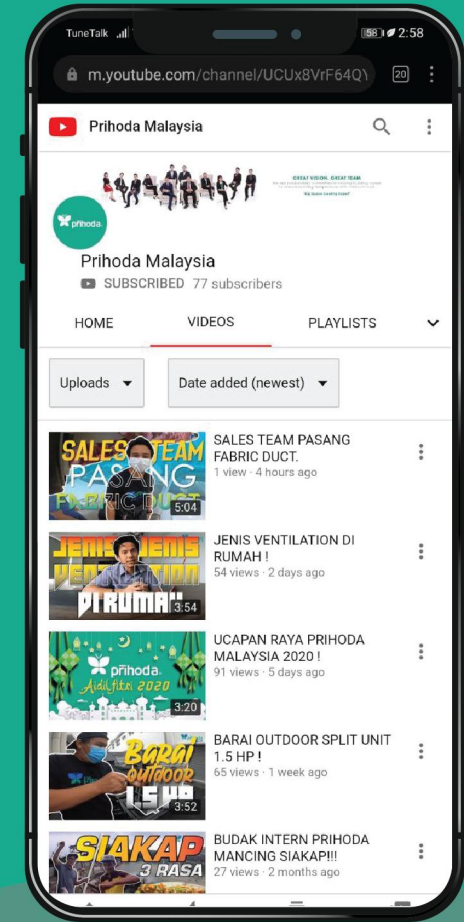
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