# iDAStech®

innovation, integration, inspiration

Solar Energy System

Fire / Smoke Ventilator

HPLED Lighting

Natural Ventilator

Architectural Performance Louvres

**Architectural Green Solution  |  HPLED Energy Efficient Lighting System  |  Solar Energy System  |  Fire Safety Application**

In iDAS Technology our key personnel have more than 10 years of experience in the construction industry and have developed a fine-tuned and successful synergy between innovative technical solutions and inspiring architectural design, resulting in new dimensions for a sustainable environment.

iDAS Technology operates in four business segments: Architectural Green Solution, HPLED Energy Efficient Lighting System, Solar Energy System and Fire Safety Application.

Our aim is to integrate energy efficient and eco-friendly products into our environment to increase sustainability. We seek to balance form and functionality and provide a healthy, comfortable and safe condition for work or play.

Attention to detail and quality of work, paired with years of industry experience, make us the perfect choice to partner with for a Design and Build System.

Architectural Green Solution

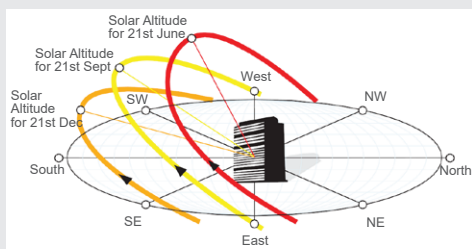HPLED Energy Efficient Lighting System

Solar Energy System

Fire Safety Application
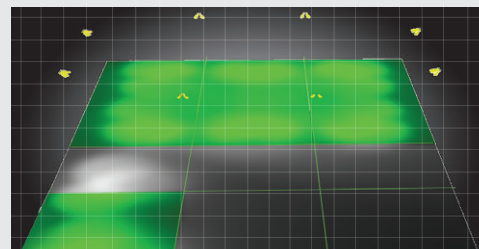
# Resources

## ■ Design and Consultancy

- Solar heat gain and shading design using sun path diagram.
- Lighting design criteria using computer simulation.
- Power generated from sun using photovoltaic cells.
- Performance based fire safety using Computational Fluid Dynamics simulation.



Sun Path Diagram

## ■ Project Management and Value Engineering

- Performance based approach to balance design requirement and budget.
- On site coordination with risk management.
- Liaison with designers, engineers and sub-contractors.



Tennis Court Light Simulation

## ■ Technical Support and Product Endorsement

- ISO certified products complying with International Standards.
- Local certification by PSB and SGLS.
- Manufacturer's warranty for product reliability with after-sales-service.



## ■ Installation, Testing & Commissioning with After-Sales-Service

- Experienced installation team with high quality of work.
- Up-to-date technology ensures system is tested to comply with design criteria.
- Comprehensive range of maintenance package with 24-hour, 365 day emergency cover as standard.



Smoke Control Servicing

# Architectural Green Solution

Architects often wish to create buildings that are both attractive and functional. It is thus important that the louvre and shading systems on the facade of building are able to achieve purpose of shading the sun, ventilating the rooms and also create an impression.

## ■ Solar Shading System

iDAStech® solar shading systems are available in many material options, shapes and sizes, fixed or movable. Automatic control systems such as sun tracking device can also be incorporated to optimise the performance of shading systems.
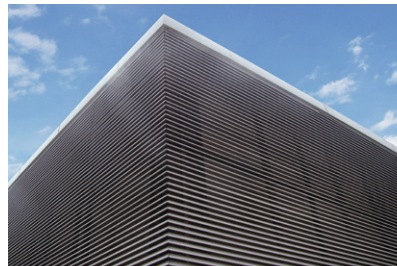


Movable Solar Shading System - Shanghai Dazhong Plant



Solar Shading System with Photovoltaic Cells

## ■ Performance Louvre System

iDAStech® weatherproof louvre systems balance the rain defence & aerodynamic performance so that maximum airflow can be achieved with the highest rain defence possible.



Single Bank Performance Louvre (SBL) System
- Beijing MRT Line Daxing



Double Bank Performance Louvre (DBL) System
- Shanghai Expo Centre
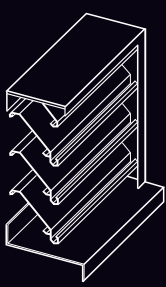
## ■ Curtain wall, Skylight and Roofing System

Customised skylight, curtain wall and roofing systems are provided based on the project requirement. iDAStech® solar shading and performance louvre system can also be easily integrated into the glazing system.
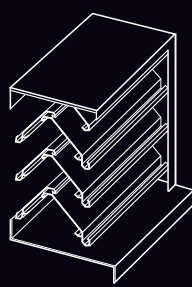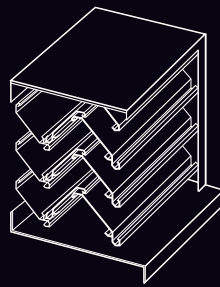


Skylight



Curtain Wall

Louvre systems are popular with designers for many applications in industrial and commercial buildings. They can be used to control light entry, provide ventilation whilst maintaining rain defence or simply for aesthetic impact.

## ■ Performance Louvre Installations

Ocean Financial Centre, Singapore

Lot One Shoppers' Mall, Singapore

Beijing MRT Line Daxing, China

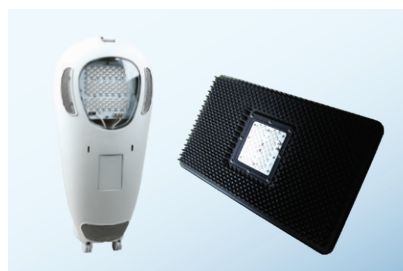Starhub Media Centre, Singapore

Gul Circle MRT station, Singapore

Tuas West Extension MRT station, Singapore

# HPLED™ and *EnviroLED®*

HPLED™ and EnviroLED® lightings are environmentally friendly products with low carbon emission, zero mercury content and optimum energy efficiency. Besides being CE certified and RoHS compliant, these products are also endorsed with Green Labels under the Singapore Green Labelling Scheme (SGLS) as an environmentally friendly LED.
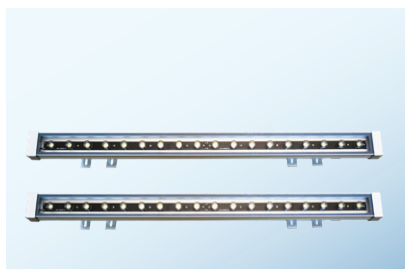
## ■ Outdoor and Industrial LED Lighting

iDAStech® outdoor and industrial LED lightings are rated IP65 with patented anti-dust design for ultimate performance. The use of active force cooling system helps to achieve more than 3.5 times better heat dissipation in comparison to natural cooling system thus reducing the amount of heat sink required.



S01 and S02 Series HPLED Streetlights



P01 Series HPLED Projection Light



XQD and XQDF EnviroLED Wallwasher Industrial Lights



115FL and 225FL EnviroLED Flood Lights



415GK and 515GK EnviroLED Industrial Lights

## ■ Interior LED Lighting

iDAStech® interior LED lightings are a simple and direct replacement for conventional lamps with low power consumption. A wide range of tubes and bulbs with various connection bases are available for selection to fit your existing lamp holders.



4ft and 2ft EnviroLED T8/T5 Tube Lights



EnviroLED Classic and Reflector Bulbs

# Solar Energy System

With the drive towards reducing energy consumption, a key objective for most designers is to maximize the use of natural lighting without the problems of glare or excessive solar heat gain. Photovoltaic cells are thus integrated into the facade and shading system to actively control heat gain and produce energy on its own.

## ■ Fixed / Controllable External Solar Shading System with Photovoltaic Cells

iDAStech® fixed/controllable external solar shading system may be installed either vertically or horizontally in front of the facade to reduce heat gain whilst maximising the use of natural daylighting. Photovoltaic cells will then be mounted onto the shading louvres or laminated onto the reverse side of the glass panels and generate electricity.

Solar Shading System with Photovoltaic Cells

## ■ Solar Powered LED Lighting System

Solar panels with photovoltaic cells are used with HPLED™ street / landscape lights to store energy generated by sunlight in the day and provide illumination at night from the storage batteries. The result of this will be reduced energy cost and $CO_2$ emission.

Solar Powered HPLED Light

Amorphous Silicon Thin Film Solar Cells    Thin Film Solar Cell Installation - Memmingen    Thin Film Solar Cell Installation - Katzenbach

# Fire Safety Application

In designing a building, it's necessary to incorporate a fire and smoke control system to significantly improve the life safety of the occupants. The fire safety system come in many forms and range widely in complexity but their basic objectives are usually the same.

## ■ Fire and Smoke Containment

iDAStech® fire and smoke containment systems prevent the movement of fire and smoke from one area to another. These take the form of physical barriers either as doors or curtains.


Smoke Curtain


Fire Rated Glass Door

## ■ Smoke & Heat Exhaust Ventilation System

iDAStech® natural or powered smoke exhaust ventilators helps to remove smoke from the building allowing low level escape routes to be kept clear of smoke. They are also available in acoustic types used in auditoriums to delay and / or prevent flashover and subsequent development of fire.
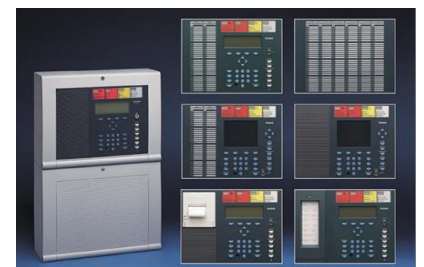

Natural Glazed Smoke Ventilator


Powered Smoke Extraction Fan

## ■ Smoke / Heat Detection & Control

Smoke detectors are the first line of defence against smoke and fire. They provide an early warning, alerting individuals of a fire, allowing them precious time to escape. iDAStech® uses smoke detectors to activate all smoke control equipments in a building via an intelligent control panel at the fire command centre.
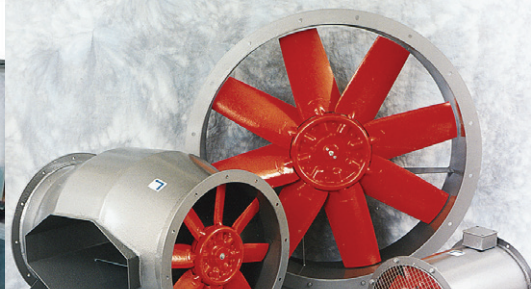

Smoke Detector


Master Smoke Control Panel
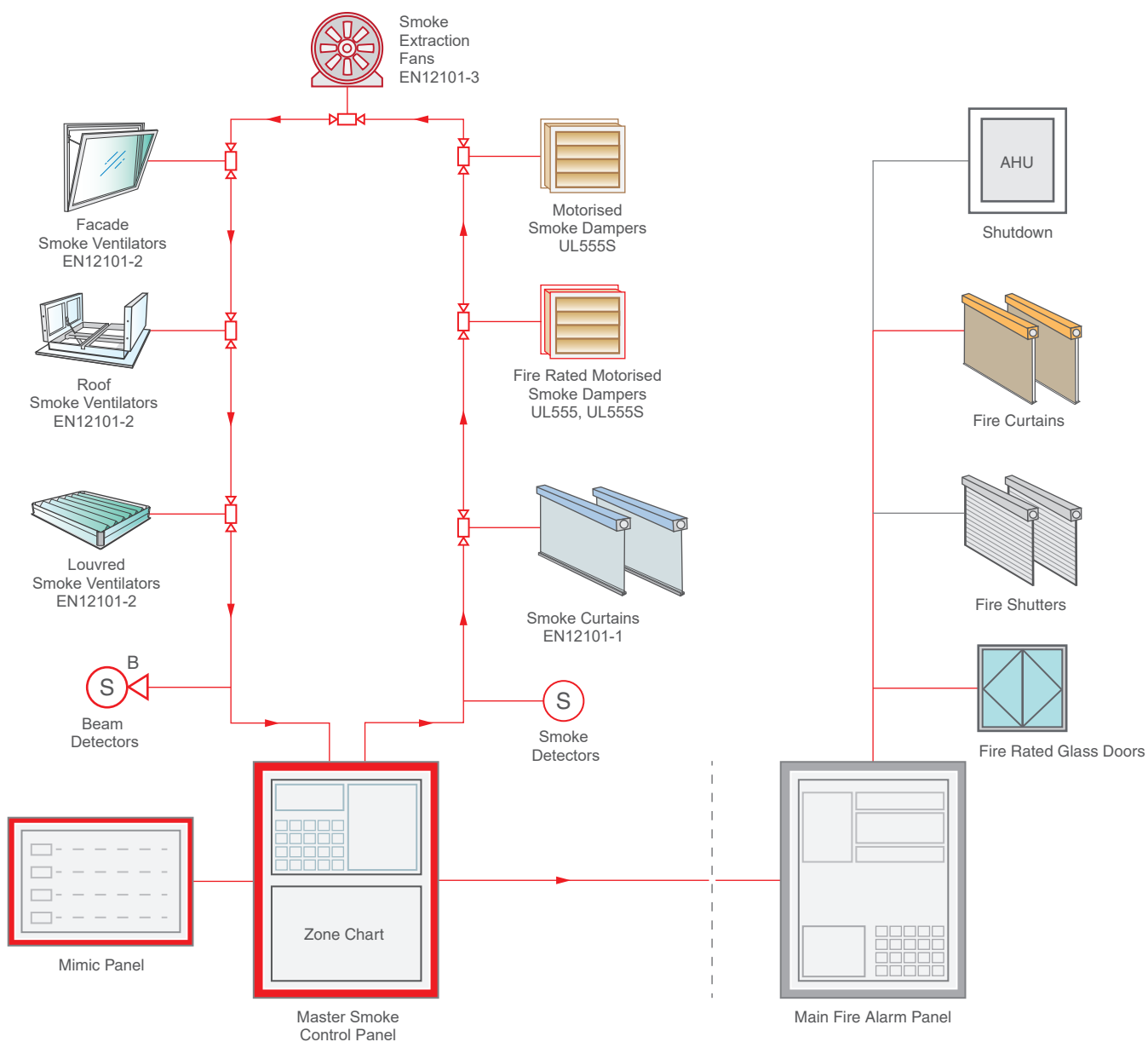
| Smoke Extraction Duct | Smoke Extraction Fans | Fire Curtain - SMU AS2 |

Our intelligent control system enables all smoke control equipment to be integrated within a control panel for synchronised activation and status indication.

## ■ Addressable Smoke Control System



Smoke Extraction Fans EN12101-3

Facade Smoke Ventilators EN12101-2

Roof Smoke Ventilators EN12101-2

Louvred Smoke Ventilators EN12101-2

B

S

Beam Detectors

Motorised Smoke Dampers UL555S

Fire Rated Motorised Smoke Dampers UL555, UL555S

Smoke Curtains EN12101-1

S

Smoke Detectors

AHU

Shutdown

Fire Curtains

Fire Shutters

Fire Rated Glass Doors

Mimic Panel

Zone Chart

Master Smoke Control Panel

Main Fire Alarm Panel

# Track Records

Track records of the products and services offered by iDAS Technology:



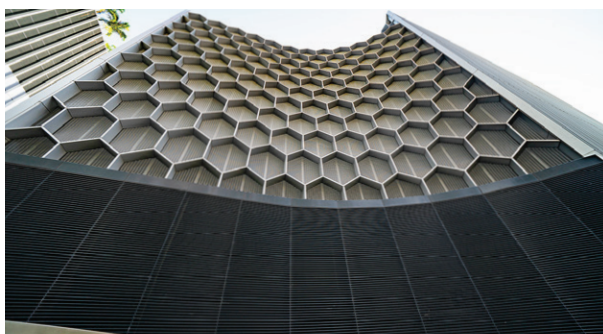Double Bank Performance Louvres - Tuas Link MRT station



Single Bank Performance Louvres - Tampines East MRT station



Double Bank Performance Louvres - Shenton Way MRT Station



Double Bank Performance Louvres - DRT Loyang Data Centre



Double Bank Performance Louvres - Duo



Double Bank Performance Louvres - Mandai MRT Depot



Double Bank Performance Louvres - PCF Marsiling



Double Bank Performance Louvres - Tuas Link MRT station

Engineered Smoke Control System - The CentrePoint


Engineered Smoke Control System - Capitol Building


Engineered Smoke Control System - Century Square


Engineered Smoke Control System - CET East Campus (Paya Lebar)


Engineered Smoke Control System - Compass One


Engineered Smoke Control System - Eastpoint Mall


Engineered Smoke Control System - Mapletree Pioneer Logistics Hub
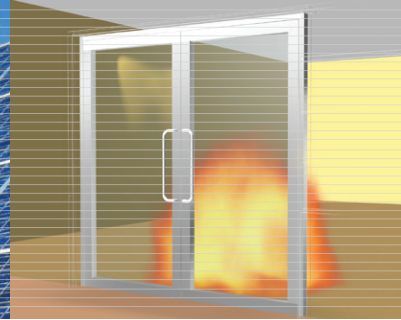

Engineered Smoke Control System - SingPost Centre

iDAS Technology

| Structural Glazing | HPLED Streetlights | Photovoltaic Cells | Fire Rated Glass Door |
|---|---|---|---|

- Glass Solar Shading Systems
- Single Bank Ventilation Louvres
- Double Bank Rainproof Ventilation Louvres
- Triple Bank Stormproof Ventilation Louvres
- Structural Glazing
- Curtain Wall
- Skylight
- Canopies

- Streetlights
- Projection Lights
- Flood Lights
- Highbay Industrial Lights
- High Performance Industrial Lights
- Wallwasher Industrial Lights
- T8 and T5 LED Tube Lights
- Classic Bulbs
- Reflector Bulbs
- Par Bulbs
- RGB Bulbs
- Corn Bulbs
- Soft Panel LED Lights
- Light Fittings

- Fixed / Controllable Solar Shading System with Photovoltaic Cells
- Solar Powered LED Lighting Systems
- Solar Cell Roofing Systems

- Automatic Smoke Curtains
- Automatic Fire Curtains
- Fixed Smoke Barriers
- Fire Rated Glass Doors
- Natural / Powered Smoke Exhaust Ventilators
- Smoke Exhaust Fans
- Smoke Dampers
- Smoke Detectors
- Smoke Control Systems
- Water Monitoring Systems
- Computational Fluid Dynamics Simulation

Chengdu
Shenzhen
Shanghai
Taiwan
Hong Kong
Philippines
Thailand
Malaysia
Brunei
Singapore
Indonesia

**iDAStech®**
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BCA Registered Contractor
(for public sector works)
CR16 (L1), CR18 (Single)
ME01 (L4), ME06 (L4)
Licensed Builders (GB2)