## **Building Type**

Golf Club Leisure & Hospitality

## **Project Highlights**

- 2,000 kW total cooling
- Total enthalpy air-to-air heat wheel with, wrap around dehumidification coil, heat pipe for fresh air pre-cooling
- 100% fresh air AHU's for kitchen
- BMS for monitoring & control all MEP plant
- Flood lighting for night golf
- Domestic water conditioning
- Fire fighting system upgrade with new fire pumps & external hydrants
- Central smart lighting control system
- Standby power generation for life safety system.
- CEBS
- LPG system upgrade with deluge system & vaporizes
- FO backbone with Cat 6 network for ELV systems.
- Central Hot water generation & distribution

## Architect / Client :

BSBG / WASL







After 21 years the Client opted for a total upgrade & retrofit of the MEP systems of existing Club House plus new Gym & Spa building with focus on Energy & water conservation measures.

Mario Associates provided the complete engineering, design & supervision of installation including: 4 new chillers provided with new primary/secondary chilled water system to serve existing & new areas alongwith new chilled water reticulation network & replacement of almost all low side equipment.



Smart capture hoods/canopies using VFD driven exhaust fans and all make up air from 100% fresh air units.

General exhaust used to pre-cool ventilation fresh air via total enthalpy air-to-air rotary heat wheels.

The golf course was also floodlit to International Standard EN 12193 with a energy management system for providing constant lighting levels over time. Mario Associates provided the performance specifications for a Design Build contractor to provide the lighting plus Mario Associates provided the supervision of the installation & the Testing & Commissioning to ensure required performance achieved.

