CURRICULUM VITAE

Professional Resume:
Mushtaq Mohamed
B.S. Engg. (Mech), LEED AP (BD+C), MIET, MASHRAE
Mobile : (+974) 33911654
e-mail : mushtaq2nm@gmail.com

PROFILE

A Bachelor of Science in Mechanical Engineering Graduate with about 18 years of professional experience (2 years in India & 16+ years in the Middle East) in site supervision and in the designing of HVAC, Fire Fighting, Plumbing (Water Supply & Swimming Pool) and Drainage services for low rise & high rise Residential, Commercial, Mixed-Use, Hotel, Offices, Medicine and Health Science buildings, schools, villas & accommodations. Infrastructures like parks, resorts and air base projects. Industrial buildings like Service Stations, Plants & Production Facilities. Transportations like Metro projects for aboveground & underground stations (including tunnel ventilation) as well. In addition, familiar in BIM (Revit), Navisworks, Auto Cad Engineering Software & well known of writing Visual Lisp & Pro-Lisp program in AutoCad engineering software for simplifying the workload of all HVAC, Fire Fighting & Plumbing (Water Supply & Swimming Pool) and Drainage services for designing, drafting & coordinating as well. Knowledge in mechanical international standards used for building services like ASHRAE, CIBSE, IPC, UPC, IOP, ASME, NFPA etc., Focused on environmentally friendly and listed by world bodies like AMCA, UL. FM etc., Good problem solving skills and Ability to work deadlines & under pressure.

KEY QUALIFICATIONS

Bachelor of Science in Engineering [B.S. Engg. (Mech)] - '2002
Birla University (BITS), Pilani, Rajasthan, India.

Diploma in Mechanical Engineering (DME) - '1999
Government Technical Training Centre (GTTC), Guindy Industrial Estate, Chennai, India.

Higher Secondary Course Certificate (Computer Science) - '1996
St. Andrew's Higher Secondary School, Arakonam, Vellore District, India.

ADDITIONAL QUALIFICATIONS

Diploma in Quality Control & ISO-9000 (DQC: ISO-9000) - 'Part Time Course
National Institute of Labour Education & Management, Luz Corner, Chennai, India.

Diploma in AutoCad Engineering Software (DACES) - 'Part Time Course
Computer Software Engineering College, CSC Computer Education (P) Ltd. Chennai, India.

OTHER QUALIFICATIONS

Certified **LEED AP** Engineer & successfully completed the LEED Green Associate [GA] & LEED AP (BD+C) Courses from the United States of Green Building Council (USGBC), USA.
LEED courses studied & trained from Madras Management Training Institute (MMTI), Doha, Qatar.

MEMBERSHIPS

Member of the American Society of Heating, Refrigerating and Air Conditioning Engineers (MASHRAE), USA & Member of the Institution of Engineering & Technology (MIET), UK.

KNOWLEDGE IN MECHANICAL DESIGN SOFTWARES

HevaComp Building Services software (In House Training).

Familiar in Carrier Hourly Analysis Program (HAP 5.11)

Preparation of Heat Gain and Heat Loss Calculations by using Elite Building Services Software

Familiar in fire fighting hydraulic Calculation for Sprinkler system by Elite & HRS (HASS) 8.5, 2021 Softwares.

Preparation of Heat Gain and Heat Loss Calculations by using LEED & GSAS Calculator, Qatar.

INPLANT PROJECT WORK - FROM BIRLA UNIVERSITY (BITS, Pilani)

Energy Conservation Management in HVAC Systems for Buildings. Comparison between Conventional Air Conditioning System & Solar Air Conditioning System.

COMPUTER PROFICIENCY

Familiar in AutoCad MEP advanced version. In addition, writing Visual Lisp programs in AutoCad.

In House Training in Revit MEP Software, Navisworks & Google Sketch Up software for creating 3D Models.

Familiar in DOS & Windows 8 Operating Systems.

Familiar in MS Word, MS Excel, MS Power Point Presentation, MS Access & MS Outlook.

PROFESSIONAL EXPERIENCE

SEP 2018 TO PRESENT	**:**	**WHITE YOUNG QATAR** Doha, Qatar
CURRENT POSITION	**:**	**SENIOR MECHANICAL ENGINEER**

Working with this international & multi-disciplinary consulting in their Doha branch, Qatar as a Senior Mechanical Engineer. The projects & complete discipline which i worked are listed below.

KEY RESPONSIBILITIES

Preparation of building services pre-concept, concept design & detail design report documentations.
Preparation of technical proposal report writing and schematic design report documentations.
Assisting the preliminary design, detail design and project documents from concept to completion.
Professional team co-ordination meetings and preparation of comments review sheet (CRS).
Supervision of Mechanical Engineers for preparing the detailed design calculations & drawings.
Reviewing & approval of detailed design drawings from CAD (or) Revit (BIM).
Local Authority, liaison, submission, co-ordination, reviewing and approvals.
Supervision of site work and obtaining quotations from the local suppliers.
Attendance at design team co-ordination meetings with other disciplines and reporting to head of MEP.
Take-off for pre-design projects and the approval of Material submittals (MAR).
Inspect contractor's installations at site during different stages of construction progress.
Co-ordination of mechanical services at site with other disciplines and assisting the project manager for resolving the technical issues and preparing the minutes of meeting (MOM).
Responding the RFI received from the client and the contractor as well.
Attending progress meetings, MEP coordination meeting and ensuring the work carried out at site and design is as per the project work requirement and schedule.
Testing and Commissioning of all mechanical services and assisting the project manager in smooth running of project as per the program.
Review and approval of Shop drawings, As-built drawings, O & M manuals and commissioning report.

PROFESSIONAL EXPERIENCE

JUN 2017 TO SEP 2018	**:**	**KEO INTERNATIONAL CONSULTANT** Doha, Qatar
POSITION	**:**	**SENIOR MECHANICAL ENGINEER**

Worked with this international & multi-disciplinary consulting in their Doha branch, Qatar as a Senior Mechanical Engineer. The projects & complete discipline which i worked are listed below.

KEY RESPONSIBILITIES

Preparation of building services (Mech.) pre-concept, concept design & detail design report documentations.
Preparation of technical proposal writing report and schematic design report documentations.
Assisting the preliminary design, detail design and project documents from concept to completion.
Professional team co-ordination meetings and preparing the comments review sheet (CRS).
Supervision of Mechanical Engineers for preparing the detailed design calculations & drawings.
Review & approval of detailed design drawings from CAD (or) BIM teams.
Local Authority, liaison, submission, co-ordination, reviewing and approvals.
Supervision of site work and obtaining quotations from material suppliers.
Attendance at design team co-ordination meetings with the Head of MEP & the Director of MEP.
Take off for pre-design projects and Material submittals (MAR).
Inspect contractor's installations at site during different stages of construction progress.
Testing and Commissioning of all mechanical services and assisting the project manager in smooth running of project as per the program.
Co-ordination of mechanical services at site with other disciplines and assisting the project manager of resolving the technical issues and preparing the minutes of meeting (MOM).
Responding the RFI received from the client and the contractor as well.
Attending progress meetings, MEP coordination meeting and ensuring the work carried out at site is as per the project work requirement and schedule.
Review and approval of Shop drawings & As-built drawings, O & M manuals and commissioning report.

PROFESSIONAL EXPERIENCE

MAY 2013 TO JUN 2017 : **WHITE YOUNG QATAR**
Doha, Qatar

POSITION : **SENIOR MECHANICAL ENGINEER**

Worked with this international & multi-disciplinary consulting in their Doha branch, Qatar as a Senior Mechanical Engineer. The projects & complete discipline which i worked are listed below.

KEY RESPONSIBILITIES

Preparation of building services design documentations.
Preparation of drawings and project documents for design from concept to completion.
Professional team co-ordination meetings and preparing the comments review sheet (CRS).
Supervision of Mechanical Engineers for preparing the detailed design calculations.
Review & approval of detailed design drawings from CAD & BIM teams.
Local Authority, liaison, submission, co-ordination and approvals.
Supervision of site work and obtaining quotations from material suppliers.
Attendance at design team co-ordination meetings with the Head of MEP.
Take off for pre-design projects and Material submittals.
Inspect contractor's installations at site during different stages of construction progress.
Testing and Commissioning of all mechanical services and assisting the project manager in smooth running of project as per the program.
Co-ordination of mechanical services at site with other disciplines and assisting the project manager of resolving the technical issues and preparing the minutes of meeting (MOM).
Responding the RFI received from the client and the contractor as well.
Attending progress meetings, MEP coordination meeting and ensuring the work carried out at site is as per the project work requirement.
Review and approval of Shop drawings & As-built drawings, O & M manuals and commissioning report.

PROFESSIONAL EXPERIENCE

APR 2008 TO MAY 2013 : **WS ATKINS & PARTNERS OVERSEAS**
Dubai, United Arab Emirates

POSITION : **SENIOR MECHANICAL ENGINEER**

Worked with this international & multi-disciplinary consulting in their Dubai branch, UAE as a Senior Mechanical Engineer (Building Services). The projects & complete discipline which i worked are listed below.

KEY RESPONSIBILITIES

Preparation of building services design documentations.
Preparation of drawings and project documents for design from concept to completion.
Professional team co-ordination meetings and preparing the comments review sheet (CRS).
Supervision of Mechanical Engineers for preparing the detailed design calculations and drawings.
Review & approval of detailed design drawings from CAD & BIM teams.
Local Authority, liaison, submission, co-ordination, reviewing and approvals.
Attendance at design team co-ordination meetings with the Head of MEP.
Inspect contractor's installations at site during different stages of construction progress.
Assistance & Co-ordination of mechanical services with other disciplines at site to support the team.
Attending progress meetings, MEP coordination meeting and ensuring the work carried out at site is as per the project work requirement and schedule. Responding to RFI and preparing MOM as well.
Review and approval of Shop drawings & As-built drawings from site team.

PROFESSIONAL EXPERIENCE

APR 2004 TO MAY 2008 : **WS ATKINS & PARTNERS OVERSEAS**
Dubai, United Arab Emirates

POSITION : **MECHANICAL DESIGN ENGINEER**

Worked with this international & multi-disciplinary consulting in their Dubai branch, UAE as a Mechanical Design Engineer. The projects & complete discipline which i worked are listed below.

KEY RESPONSIBILITIES

Preparation of drawings and project documents for design concept to completion in conjunction with Head of Department. Services (HVAC & Plumbing) mark-ups & mechanical plant rooms spatial mark-ups.
Preparation of Heat gain and Heat loss calculations (Thru' Hourly Analysis Program [HAP-5.11] & HEVACOMP).
Chilled Water Pipe sizing, Air Conditioning & Ventilation Ductwork sizing as well.
Assist in design of Plumbing (Water Supply & swimming Pool), Drainage & Fire Fighting & supervising CAD.
Take off for predesigned projects & obtaining quotations from material suppliers.
Attendance at design team co-ordination meetings with Senior Engineers & Head of Department.
Client and main contractor liaison and responding to RFI as well.
Fan static pressure calculation, Pump head calculation, monitoring Junior Engineers for design & calculations.
Local authority liaison, Submissions, Co-ordination and Approvals.

PROFESSIONAL EXPERIENCE

MAY 2002 TO MARCH 2004 : **AUTOMATION TECHNICS Pvt. Ltd. (SPM DIVISION)**
Chennai, India

POSITION : **MECHANICAL ENGINEER**

Worked with this firm as a Mechanical Engineer in their Chennai branch, India. The projects & discipline which i worked are listed below.

KEY RESPONSIBILITIES

Preparation of drawings and design of Jigs & Fixtures, Pneumatic & Hydraulic Presses & Special Purpose Machines (SPM) based on the type of component from the client in conjunction with Senior Mechanical Engineer.
Assisting the senior engineers in design concept stage & Supervision of Cad Technicians.
Supervision of CAD technician, reviewing and approval of design drawings.
Progress, budget, project control and preparation of accurate project costs.
Professional team co-ordination meetings.

WHITEYOUNG QATAR, DOHA, QATAR - SEP' 2018 TO PRESENT

A Few of the major projects which I am getting involved in the concept stage are listed below.

1. **DHUKAN AIR BASE (DAB)**
2. **AL-UDEID AIR BASE (AUAB)**
3. **DEVELOPMENT OF DOHA AIR BASE (DDAB)**

Since the above-mentioned projects are from the ministries of Qatar Armed Forces (QAF) and very highly confidential hence it's not recommended to describe or briefing the MEP services and it's systems for the above mentioned projects.

KEO INT'L CONULTANT, DOHA, QATAR - JUN' 2017 TO SEP' 2018

A Few of the major projects which I involved are listed below.

LUSAIL STADIUM @ LUSAIL

The Lusail Stadium will be one of the venues which will host matches in the 2022 FIFA World Cup Qatar (the Tournament). The stadium will be the host venue for the opening ceremony and match, and also further matches throughout the competition, including the FIFA World Cup Final and closing ceremony. The Stadium will be designed and constructed to meet the Federation international de Football Association (FIFA) standards in Tournament mode and will house 82,282 Net spectators (Temporary Tiers) and have 91,975 Gross seats during the World Cup.

The total comfort area of the bowl is 88,255m² and foot print area of the bowl is 80,000m². This is a semi exposed space and there will be natural fresh air within the bowl from the oculus but this has not been factored for in the calculation. For FOP, the mixture of outside air and recirculated ventilation air will be provided for comfort cooling. Comfort cooling will be provided for the pitch to maintain the comfort conditions for players and officials. For Lower Tier, recirculated ventilation air and comfort cooling will be provided for the spectators. For Mid-Tier, the mixture of outside air and recirculated ventilation air will be provided for comfort cooling for the spectators. For Upper Tier, the mixture of outside air and recirculated ventilation air will be provided for comfort cooling for the spectators. In addition, 100% outside air handling units will be provided for the upper tier to maintain the comfort conditions for the spectators.
The Bowl (Stadium) consists of Field of Play (FOP-Pitch Area), Lower Tier, Mid-Tier, VVIP / VIP Areas, Upper Tier, Multi-cuisine kitchen, restaurants, circulation areas, meeting rooms and prayer rooms. The total cooling load of the bowl = 13,080TR. With 2 Nos. of ETS rooms equally shared to rationalize the chilled water risers for the different zones of the bowl. The bowl were served by marafeq district cooling network for air conditioning.
The bowl were also served by AHU's, OAHU's, CRAC and Chilled Water FCU's with interfaces to BMS & VAV systems for the offices and the VVIP / VIP areas.
The bowl were protected by wet sprinkler systems, fire hose reel, landing valve, breeching inlets, different types of fire protection extinguishers, clean agent systems & hydrants in accordance with NFPA. Involved in complete design of HVAC, supervision of BIM team for detailed drawings, coordination with other disciplines & local authority, liaison, submission, coordination & approvals.

QATAR UNIVERSITY-COLLEGE OF MEDICINE & HEALTH SCIENCE (QU-CMHS)

The QU-CHMS comprising of basement, ground floor, first floor, second floor, third floor & Roof. The QU-CHMS building comprising of basement carpark, college of medicine, college of health science, teaching & research labs, teaching & research classrooms, cafeteria, atrium, lecture rooms, clinical Skills, reception & administration. The total comfort area of the building is 35,000m² and foot print area of the building is 3,500m². The scope of HVAC services includes district cooling ETS room, air conditioning, ventilation, lab fume hood exhaust system, lab & general exhaust system, atrium exhaust system and building management system (BMS).
The total cooling load of the QU-CMHS of the building = 2060TR. With I No. of ETS room. The building were served by internal district cooling network for air conditioning. The building were also served by AHU's,

OAHU's and Chilled Water FCU's with interfaces to BMS & VAV systems for the offices and VIP areas. Part of the building were also served by Dx-Split systems for Air Conditioning.
The building were also protected by wet sprinkler systems, fire hose reel, landing valve, breeching inlets, different types of fire protection extinguishers, clean agent systems & hydrants in accordance with NFPA. Involved in complete design of HVAC and plumbing services, supervision of BIM team for detailed drawings, coordination with other disciplines & local authority, liaison, submission, coordination & approvals.

WHITE YOUNG QATAR, DOHA, QATAR - MAY' 2013 TO JUN' 2017
A Few of the major projects which I involved are listed below.

QATAR ARMED FORCES (QAF)
GENERAL HEAD QUARTERS & MILITARY POLICE CAMP (GHQ & MPC)

QAF – GHQ & MPC : This project site consists of 3 phases namely, Phase 1-MPC, Phase 2-GHQ &
Phase 3-Training & Accommodations. The whole phases totally comprises of 65 buildings including underground car parking of 750,000 Sq.m. of area.
For Phase 1 – MPC comprises 460,000 Sq.m. of area, for Phase 2 - GHQ comprises 155,000 Sq.m. of area & for Phase 3 – Training & Accommodation Buildings comprises 135,000 Sq.m. of area. The 3 Phases of the buildings were served by Cooling Tower Systems for Air Conditioning. Part of the small blocks & buildings for the 3 phases were served by Dx-Split & VRF systems for Air Conditioning.
The total cooling load of the buildings for the 3 phases = 20,250TR. The 3 phases comprises of Headquarters, Military School, Sports facilities, Clinics, Battalions, Kennels, Accommodations, Barracks, Workshop, Car park, Clubs, Cerm. Majlis, Stores, Petrol Stations & 2 Service Compounds. The buildings were also served by AHU's, OAHU's, Water Cooled Chillers, and Chilled Water FCU's with interfaces to BMS & VAV systems for the offices.
The buildings were protected by wet sprinkler systems, fire hose reel, landing valve, breeching inlets, different types of fire fighting extinguishers, clean agent systems & hydrants in accordance with NFPA. Involved in complete design of HVAC, Fire Fighting & Plumbing (Drainage, Water Supply & Swimming Pool) services. In addition, supervision of CADD team for detailed drawings, coordination with other disciplines & local authority, liaison, submission, coordination & approvals.

5 - STAR HOTEL PROJECT
NOZUL MIXED USE TOWER – 009A WITH **GSAS** BASED DESIGN
NOZUL HOTEL TOWER @ LUSAIL : The 5 star mixed hotel tower consists of 30 storeys with 5 basements for car parking & 6 floors of total podium levels above ground level with 3 floors of podium levels for multi-cuisine restaurants, pools, spa, gymnasium, meeting rooms, prayer rooms, ballroom, resident's lounge, valet service, in-housing dinning, business centre, children's club and health club. 140m high and 2240m2 building floor area above basement level up to podium level 3, 1400m2 floor area from podium level 4 to podium level 6 & 985m2 floor area for all guestroom levels from level 6 to level 25th. 184 apartments including guestrooms with (or) without terrace, suites with terrace & royal suites. District cooling system has been used for air conditioning for the 5 star mixed hotel tower. The 5 star mixed hotel tower has been served by PHEX's, AHU's, OAAHU's & chilled water FCU's & VAV systems for podium levels. The total cooling load of the tower is 700TR (2462kW). The Total water storage capacity of the tower for 2 days including fire water reserve is 340,000 liters. The hotel tower was protected by wet sprinkler systems, fire hose reel, landing valve, fire fighting extinguishers, breeching inlets, clean agent systems & hydrants in accordance with NFPA. Involved in concept to complete design of HVAC, Fire Fighting, Domestic Water Supply, swimming pools & Spa services and also supervision of mechanical Engineers & draughtsman for detailed design & drawings.

2 - STAR OFFICE PROJECT
LAMELA OFFICE TOWER – WITH **GSAS** BASED DESIGN
LAMELA OFFICE TOWER @ LUSAIL : The 2 star office tower consists of 40 storeys with 2 basements
for car parking also 8 floors of total podium levels above ground level for car parking. 160m high and 2850m2 building floor area above basement level up to podium level 8 & 1160m2 floor area for all office floor levels from level 1 to level 28. The tower consists of three types of office floors with pantry facility for each office. District

cooling system has been used for air conditioning for the 2 star office tower. The 2 star office tower has been served by PHEX's, AHU's, OAAHU's & chilled water FCU's. The total cooling load of the office tower is 990TR (3482kW). The Total water storage capacity of the tower for 2 days including fire water reserve is 350,000 liters. The hotel tower was protected by wet sprinkler systems, fire hose reel, landing valve, fire fighting extinguishers, breeching inlets, clean agent systems & hydrants in accordance with NFPA. Involved in concept to complete design of HVAC, Fire Fighting & Domestic Water Supply services and also supervision of mechanical Engineers & draughtsman for detailed design & drawings.

SCHOOLS

Doha English Speaking School (DESS) Extension, Primary School in Doha : Doha English speaking school extension consisting of ground level, 1st floor level and roof level. The campus comprises of specialist areas such as ICT, library, Science Lab, Classrooms, ports facilities, music rooms, amphi theatre, auditorium, indoor pools & playground. 900m2 of school built extension area with onsite car parking facilities & 8.0m high. Dx-Split system has been used for air conditioning for the school building.

AL-RAYYAN PALACE

New Palace @ Al Rayyan : This site consists of 3 Plots, 1. Main Majlis (B+GF+1+RF), 2. Main Villa (B+GF+2+RF) & 3. Grand Mother Villa (B+GF+RF) plots including with Kitchen & Saff Accommodations building & 2 Service Compound Buildings. 32,250 Sq.m. of the total building floor area. The total cooling load of the buildings=800TR. The Buildings were served by Air Cooled Chiller systems for Air Conditioning. The buildings were also served by AHU's, OAHU's, Chilled Water FCU's with interfaces to BMS. The buildings were protected by fire hose reel, breeching inlets, different types of fire fighting extinguishers, clean agent systems & hydrants in accordance with NFPA. Involved in complete design of HVAC, Fire Fighting & Plumbing (Drainage, Water Supply & Swimming Pool) services. In addition, supervision of CADD team for detailed drawings, coordination with other disciplines & local authority, liaison, submission, coordination & approvals.

W S ATKINS & PARTNERS OVERSEAS - APR' 2004 TO MAY' 2013

A Few of the major projects which I involved are listed below.

RESIDENTIAL

Bright Start Tower, Sheik Zayed Road : A 60 storeys and a basement level of 1400m2 building floor area and 280m high & a separate 10 storeys car park building of 800m2 building floor area and 40m high. Cooling tower system has been used for air conditioning for the tower.

Plot-E1, Jumeriah Lake Tower, Best Homes Emirates, Venus Int'l Holding Ltd : A 36 storeys, 3 basement levels and 2 floors for mechanical plant room of 1300m2 of building floor area and 140m high. The tower has been served by district cooling system for air conditioning.

Sky Gardens Tower, Dubai Int'l Finance Centre (DIFC), Al Mazaya Real Estate Development :

The tower consists of 42 storeys, 3 basement levels for car parking & lower & upper penthouse levels of 2300m2 of building floor area 170m high. District cooling system used for air conditioning.

Gold Crest Views, Mazyood Tower-1&2, Plot -J1&V2, Jumeriah Star Giga Establishment Ltd. :

A 40 storeys with 5 basement levels for car parking, health club, gymnasium, pools and spa facilities with 1200m2 of building floor area & 160m high. District cooling system used for air conditioning.

2CDE Dubai Marina Residential Tower : 28 storeys with a basement level for parking, 1000m2 of building floor area above podium level & 115m high. A huge podium areas of 9200m2 for 1 & 2 bed rooms for villas & amenities include health club, swimming pool, kids pool, spa, coffee shops and retails. Cooling tower system has been used for air conditioning.

OFFICES

COMMERCIAL & MIXED USE MULTI-STOREY TOWERS.

DMCC Al Mas Tower-Nakheel, Sheik Zayed Road, 1st Interchange : The tower consists of 65 storeys with 5

basements & 3 floors of vast podium areas for food outlets, retails, break-out areas, exhibition space, ballroom area & diamond exchange centre. 360m high & 1600m2 building floor area above podium level. The tower was served by district cooling system for air conditioning.

Business Bay Oval Tower-DSEC Corporation FZC : A 22 storeys with 2 basements and 4 floors of podium areas for car park, restaurants and retail areas. 100m high & 1800m2 building floor area above podium level. District cooling system has been used for air conditioning for the tower.

Plot W2 Tiffany Tower-Jumeriah Lake Towers (IFFCO) : The tower consists of 45 storyes with 5 basements for car park, 1 promenade level for car park and retail areas as well and 1 floor podium areas for coffee bar, food court areas and meeting rooms. 175m high & 1300m2 building floor area above podium level. The tower has been served by district cooling system for air conditioning.

Iris Bay-Sheth Tower (Sheik Zayed Road 3rd Interchange) : A 36 storeys with 3 basements for car parking for 920 cars & 4 podium levels for car park with health club, gymnasium & retails, 174m high & 1500m2 building floor area above podium level. District cooling system used for air conditioning.

Bahrain World Trade Centre Twin Towers-DTZ, Manama, Bahrain : The towers consists of 2x50 storeys twin towers with three-storeys podium for shopping centre, restaurants, food court, business centre, healthclub & spa. 16,000m2 of podium areas. 1700 onsite car parking spaces. 240m high & 2900m2 tower floor area above podium. Towers was served by district cooling for air conditioning.

Indigo Tower, Plot-D1 (Offices & Residentail), Jumeriah Properties Investment Ltd. : 35 storeys with 4 basements for car parking & huge podium areas for retails, health club, swimming pool, spa & gymnasium. 10 floors of 1000m2 of tower floor area for office floors & 25 floors of 1400m2 of building floor area for residential above podium. District cooling system used for air conditioning for the tower.

Al-Salam Tecom Tower, Offices & Residential : The tower consists of 45 storeys with 2 basements for car parking, 5 floors of podium for car parking, gymnasium, aerobics, sauna, steam bath, juice bar, swimming pools, spa, prayer rooms, health club, food courts, meeting rooms and retails. The tower consists of 15 floors of residential and 23 floors of offices, 1800m2 building floor area above podium & 192m high. The tower has been served by district cooling for air conditioning for the tower.

Esfahan Convention Centre, Esfahan, Iran : The building consists of G+3, intermediate, viewing & roof. 39610m2 of gross built area & 50m high. Velocity displacement method has been used for air conditioning for meeting centres. The building has been served by Lithium bromide absorption chiller for heating & for air conditioning.

HOTELS & RESORTS

Burj Dubai Lake Hotel & Apartments (Emaar Properties) : The 5 star mixed hotel tower consists of 65 storeys with 2 basements for car parking & 2 floors of podium areas for restaurants, pools, spa, gymnasium, resident's lounge, valet service, in-housing dinning, business centre, children's club and health club. 303m high and 4500m2 building floor area above podium level. 210 apartments including studio, 1, 2,3 & 4 bedrooms. District cooling system has been used for air conditioning for the tower.

Emerald Palace Hotel Apartents, Icon of Jumeriah Palm Island : The 5 star hotel palace consists of 6 storeys with 1 basement for car parking & 189 hotel apartments with townhouses and penthouses with gross floor area of 140000m2. The hotel palace includes spa, restaurants, beach, temperature control swimming pools, spa, squash court, lounge, courtyard balconies for outdoor dining & viewing area. The star palace hotel was served by district cooling system for air conditioning.

Ibis & Suite Hotels, Mall of Emirates, Al Barsha Majid Al-futtaim, Hospitality LLC : The ibis and suite hotels consists of 6 storeys and a basement for car parking. The ibis and suite hotels consists of typical standard rooms, typical grand suits and typical ibis rooms. 4000m2 of building area and 30m high, The suite hotel building has been served by air cooled chillers for air conditioning.

Ibis & Novotel Hotels, Deira City Center, Ibis Groups of Hotels, Majid Al-futtaim : The Hotel building consists of 9 storeys with 2 basements for car parking and a service floor. 4200m2 building floor area & 50m high. Amenities

include health club, pools, spa, gym, novotel & ibis café, meeting rooms & covered arcade. Cooling tower system used for air conditioning for the hotel building.

SHOPPING MALLS

Bahrain Sheraton Mall Extension : The commercial shopping centre consisting of ground, first and roof levels. Spanning across an area of 750,000 square feet with over 120 stores, retail shops, IKEA, cinemas, geant hypermarket, food outlets, restaurants, multi-purpose hall, entertainment areas of all age groups & 1600 onsite car parking. District cooling system used for air conditioning for the mall.

Padidieh Shandiz Shopping Mall, Shandiz Town, Iran : The mall consisting of ground + 6 floor levels and lower & upper roof levels. Spanning across an area of 560,000m2 of building area with an ice rink, an expansive aquarium, hypermarket, department store & 4000 onsite car parking facility. The mall has been served by air cooled chillers cooling system for air conditioning.

SCHOOLS

Jumeriah English Speaking School (JESS), Primary School in Jumeriah : Jumeriah English speaking school consisting of lower ground, ground level, 1st floor and roof level. The campus comprises of specialist areas such as ICT, library, sports facilities, music rooms, amphi theatre, auditorium, indoor pools & playground. 35000m2 of school campus area, 130 onsite car parking & 10.7m high. Air cooled chillers system has been used for air conditioning for the school building.

Foursan School, Green Community, Beacon Education, Phase-1&2 : The school consisting of ground & 1st floor levels, lower roof and uppler roof. 40000m2 of school campus area, 220 onsite car park facilities were available. The school building consists of elementary school block, administration block, elementary block dining hall, staff lounge, gym, arts & science learning centre & temperature control pools. The school building has been served by district cooling system for air conditioning.

INDUSTRIAL PROJECTS

New Production Facility for Gulf News, Dubai Investment Park Second : The Industrial building Consisting of ground, mezzanine & roof level. 75000m2 of building area with 217 onsite car parking facilities. The industrial building was served by cooling tower system for air conditioning.

Dubai Flower Centre, Govt. of Dubai, Dept. of Civil Aviation, Terminal-2 : The building consists of ground, mezzanine, 1st, 2nd & roof floor levels. 18800m2 of building area with onsite car parking facilities. District cooling system used for air conditioning. 22% of concentrated propylene glycol & chilled water from district cooling has been used for air conditioning for the industrial building.

COMMUNITY DEVELOPMENT

Emirates Hills, Emaar Properties, Town Centre : The building consisting of ground, 1st and roof. 12265m2 of building area, 314 onsite car parking facilities, 8.25m high & squash courts, gym, pools, spa, sauna, steam bath, food & beverages outlets, retails, cafe, supermarket of 3200m2 and office rooms for Emaar staffs. The building was served by air cooled chillers system for air conditioning.

Meadows Village : The building consists of ground level and roof. 8000m2 of building floor area and amenities include squash courts, multi-function halls, retails, ladies gym, mixed gym, vip lounge, spa, restaurants and members lounge. Air cooled chillers system used for air conditioning for the building.

Springs Village : Ground level and roof. 4600m2 of building floor area & amenities include pharmacy medical centre, retails, outdoor pools, spa, coffee shop, gymnasium and supermarket. The building has been served by packaged unit system for air conditioning.

Golf Club House : The building consists of basement, ground , 1st floor and roof. 2250m2 of building floor area and amenities include cigar, billiards, meeting rooms, restaurants, bar, treatment rooms and prayer rooms. Air cooled chillers system used for air conditioning for the building.

Accacia Avenues, Villa complex, Abyaar Real Estate Development : Villa complex consisting of ground, 1st, 2nd & roof levels. 790m2 of 3-bedrooms villas of different types and amenities include car parking area and swimming pool. Dx-split systems for air conditioning has been used for the villas.

American University, Dubai, Shaik zayed Road, Student Dormitory & Staff Accommodation:

The dormitory building consists of 14 storeys with a basement. 1150m2 of building floor area, 55m high. Retails, gym, dining hall and TV room. The staff accommodation building consists of ground, 1st and roof. 685m2 of building floor area and 10 rooms, dining hall and a separate supervisor room. 100 onsite car parking facilities were available for both dormitory and staff accommodation building. Both the buildings were served by air cooled chillers system for air conditioning.

PPM Conrad Hotel Staff Accommodation, Private Property Management, Al-Ain : The staff accommodation site campus consists of (4+4) typical single & double accommodation blocks and a separate mosque. Each block has 3 storeys, 38800m2 of plot area and amenities includes 200 onsite car parking facilities, separate 50 car parking facilities for mosque, pools, gym, communal dining, coffee shops, internet cafe, recreation & training hall, pharmacy, clinics, juice bar and health club. All the blocks including mosque has been served by Dx-split systems for air conditioning.

METRO PROJECTS

Kolkata Metro : The Kolkata metro project which comprises of 6 under ground stations. 6500m2 of street level area and 4800m2 of below ground station area of each station. The station consisting of roof, street level, upper concourse, lower concourse and platform level. Cooling tower system used for air conditioning for all the stations.

Qatar Metro, Lusail : The Qatar metro project which comprises of 4 under ground stations. 8500m2 of street level area and 8000m2 of below ground station area of each station. The station consisting of street level, concourse level and platform level. District cooling system used for air conditioning for all the stations.

AIRPORT

King Abdul Aziz Int'l Airport, Load Centre A, B, C & AC, Jeddah, Saudi Arabia : Each load centre has 18 low rise blocks (Max. G+3 & roof). 197000m2 of plot area. Cooling tower system for each load centre has been used for air conditioning for the 18 buildings.

AUTOMATION TECHNICS - May '2002 - Mar '2004

A Few of the major projects which I involved are listed below.

DESIGN CONSULTANT OF TVS GROUPS

(AUTOMOBILE COMPONENT PARTS DESIGN & MANUFACTURER)

SPM DESIGN DEPARTMENT

Involved in design of jigs & fixtures, press tool designs, Special Purpose Machines (SPM), specially designed pneumatic & hydraulic presses and gauges for the industries like TVS groups, TI cycles, UCAL, IML, Mando brakes, Redema, Standayne India Pvt. Ltd. and Delphi TVS Pvt. Ltd.

PERSONAL PROFILE

QATAR ID Card No.	**27735633667**
Passport Number	**U0738961**
Name in Passport	**MUSHTAQ SADIQUE MOHAMED**
Date of Issue	**16-12-2019**
Date of expiry	**15-12 2029**

DOB	**02 OCT 1979**
Nationality	**INDIAN**
Status	**MARRIED**
Children	**3**
QATAR Driving License	**YES**

REFERENCES

Mr. Steve Philips
CEng., FCIBSE, MASHRAE
MEP Manager
Building Services
W.S. Atkins & Partners Overseas
Dubai
UAE

Mr. Keith Hill
M.Sc., CEng., MCIBSE, MNFPA, MASHRAE
Technical Director of MEP Engineering
Building Services
W.S. Atkins & Partners Overseas
Dubai
UAE

Mr. Mark Clifford Wilson
M.Sc. (Engg.), CEng., MCIBSE, MASHRAE, MNFPA
Deputy Head of MEP
Building Services
W.S. Atkins & Partners Overseas
Dubai
UAE

Mr. Stuart Banks
B. Sc. hons, B. Arch hons, Dip. TP., M.B.A Construction & Real Estate,
Dip. Proj. Mang (RICS), RIBA, MRTP, MAPM
General Manager
White Young Qatar
Doha
Qatar

Mr. Jonathan S. Barker
B. Sc. hons, B. Arch hons, Dip. TP., M.B.A, RIBA,
Dip. Proj. Mang (RICS)
General Manager
White Young Qatar
Doha
Qatar

Mr. Ekram Syed Ali Urfi
M.Sc. (Engg.), CEng., MCIBSE, MASHRAE
PE (Int'l), GSAS-CGP®
Head of MEP & Sustainability
Building Services
White Young Qatar
Doha, Qatar

Mr. Mohamed Jaber
PE, GSAS CGP, HFDP, HBDP
Director of MEP Engineering
Building Services
KEOIC Qatar office
Doha
Qatar

Mr. Kamal Taj
PE, LEED AP, GSAS CGP, HFDP, HBDP
Technical Director-MEP Engineering
Building Services
KEOIC Qatar office
Doha
Qatar