



# MEPFIT

CONSULTING ENGINEERS

MEP & BIM SOLUTION



[www.mepfit.com.pk](http://www.mepfit.com.pk)

## COMPANY PROFILE



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**DESIGN WITH  
COORDINATION**

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**BUILD WITH  
CONFIDENCE**





# WHO WE ARE

MEPFIT Consulting Engineers aim to deliver one window turnkey solution to their clients by means of MEP engineering design, coordination with BIM / Revit / 3D / CAD softwares and execute the projects in the financial benefit way inline with quality and standards in tight time schedules.

MEPFIT believes in developing long term trust relationships with their clients by forecasting facts of reality, considering all facts in financial numbers, technical specifications, project requirements, prerequisite demand of the client and forthcoming matters.

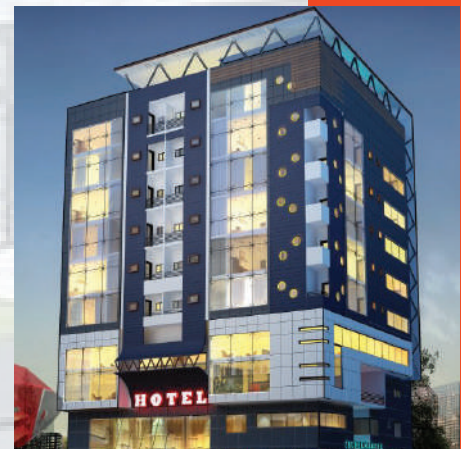






We have an MEP experienced design engineers team who have a versatile expertise in designing and materialising of local and International projects of following application

- Healthcare Facilities / Hospitals
- Transportation Centers/Airports
- High Rise Multipurpose Towers
- Commercial and Residential Buildings
- Hotels
- Auditorium
- Clubs
- Expo Center
- Retail Facilities
- Clean Room
- Data Centers
- Printing Plants
- Laboratories
- Pharmaceutical Industries
- Industrial and Power Plant Buildings



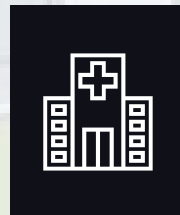
Commercial



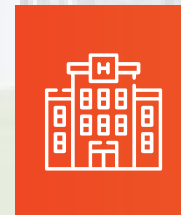
Residential



Industrial



Medical



Hospitality



Educational



## VISION

Aspires to become a distinguished engineering firm which is always remembered by client's and society for excellence engineering services in an honest way.

## MISSION

To serve its client's and society by providing advanced, accurate and effective engineering solutions that improves its client's businesses and facilitates society's access to competitive, safe, sustainable and state-of-the-art engineering services.

# CEO PROFILE



CEO

Muhammad Ubaid Yousuf

Muhammad Ubaid Yousuf is a highly regarded Professional Engineer with an impressive academic and professional background. He holds a B.E Mechanical Engineering Degree from NED University Karachi in 2005. He has versatile and dynamic experience in HVAC System design, execution, operation, and maintenance in his vast career of about two decades period (20 Years)

He is a Seasoned Professional Engineer (PE) Mechanical duly accredited by the Pakistan Engineering Council (PEC), Life Member Institute of Engineers, Pakistan (IEP), and Pakistan HVACR Society.

He initiated his career as a Utility Engineer at Gatron Indl. Ltd. followed by his career as a Design Engineer of HVAC Systems at Petrochem Engineering Consultant, EA Consulting Pvt. Ltd. (formerly Engineering Associates) including his precious 14 years' service at National Engineering Services Pakistan Pvt. Ltd. (NESPAK), Pakistan's Premier Engineering Consultancy Organization.

During his career, he designed more than 200 National and Multi-National projects of Centralized and Decentralized HVAC systems of Health care facilities; Hospitals, Clean Rooms, Laboratories, Airports, Aircrafts Paint Hangers, Commercial and Residential Buildings, High Rise Multipurpose Towers, Hotels, Health Clubs, Villas, Auditoriums, Expo Centers, Data Centers, Printing Plants, Power Plant Application Buildings; Energy Centers, Industrial Application Buildings, Ports & Harbors.

Services include, Proposals, Detailed Engineering Design, Tender Documents, Value Engineering, Field Design Support Services, Site Supervision, Design Vetting, Coordination and Costing, etc.

As a CEO of MEPFIT Consulting Engineers, he is poised to contribute significantly to its growth and the engineering fraternity through his exceptional management skills and extensive experience.



# **CEO'S CAREER KEY PROJECTS**

- **200 BED JINNAH HOSPITAL AT KABUL, AFGHANISTAN.**  
7 Nos Block, G+2 Floors – Central Heating System, Packaged AC System and Split Units System
- **120 BED HOSPITAL AT ANJOUAN ISLAND, COMOROS**  
6 Nos Block, 2B+G+1 Floors – Packaged AC System and Split Units System
- **60 BED BURN AND TRAUMA CENTER AT PESHAWAR, PAKISTAN**  
Two Wings of B+G+2 Floors – Water Cooled Central Chiller System
- **MULTI-PURPOSE COMMUNITY HALL AT PEC COMPLEX, QATAR.**  
G+1 Floors – Packaged AC System and Split Units System
- **NEW GWADAR INTERNATIONAL AIRPORT, PAKISTAN**  
Passenger Terminal and Allied Buildings – Water Cooled Central Chiller & Split Units System
- **SIALKOT INTERNATIONAL AIRPORT, PAKISTAN**  
Passenger Terminal and Allied Buildings – Packaged AC System and Split Units System
- **EMAAR PEARL & REEF TOWERS, CRESCENT BAY AT KARACHI, PAKISTAN**  
5 Nos, 2B+G+27 Story Residential Towers on Huge Retail Podium and 10 Nos. Town Houses  
Variable Refrigerant Flow/Volume System (VRF/VRV System), Split Units System, Basement Duct-less Ventilation System, Stairwell Pressurization System and Smoke Extraction System







- **REMODELING & EXPANSION OF KARACHI EXPO CENTER, PAKISTAN**  
3 Nos Expo Center Halls - Water Cooled Central Chiller System
- **STATE BANK OF PAKISTAN AT DI KHAN, PAKISTAN**  
5 Nos Block, B+G+2 Floors – Water Cooled Central Chiller & Split Units System
- **PORSCHE M.E. HEADQUARTERS AT DUBAI, UAE**  
G+1 Floors – Air Cooled Chiller System – Site Supervised
- **PALM DEIRA FIRST COMPLEX BUILDINGS AT DUBAI, UAE**  
6 Nos, 16 Storey Blocks on Huge Retail Podium – District Cooling System
- **BURJ DUBAI PLOT-21 AT DUBAI UAE**  
47 and 32 Storey Residential Towers with 4 High end Retail Podiums – District Cooling System
- **BABAN HEALTH CLUB AT RIYADH, SAUDI ARABIA**  
Single Story – Packaged Air Conditioning System and Split Units System
- **JANDRIYA FARM HOUSE AT RIYADH, SAUDI ARABIA**  
Single Story – Packaged Air Conditioning System and Split Units System



# **WHAT WE DO**

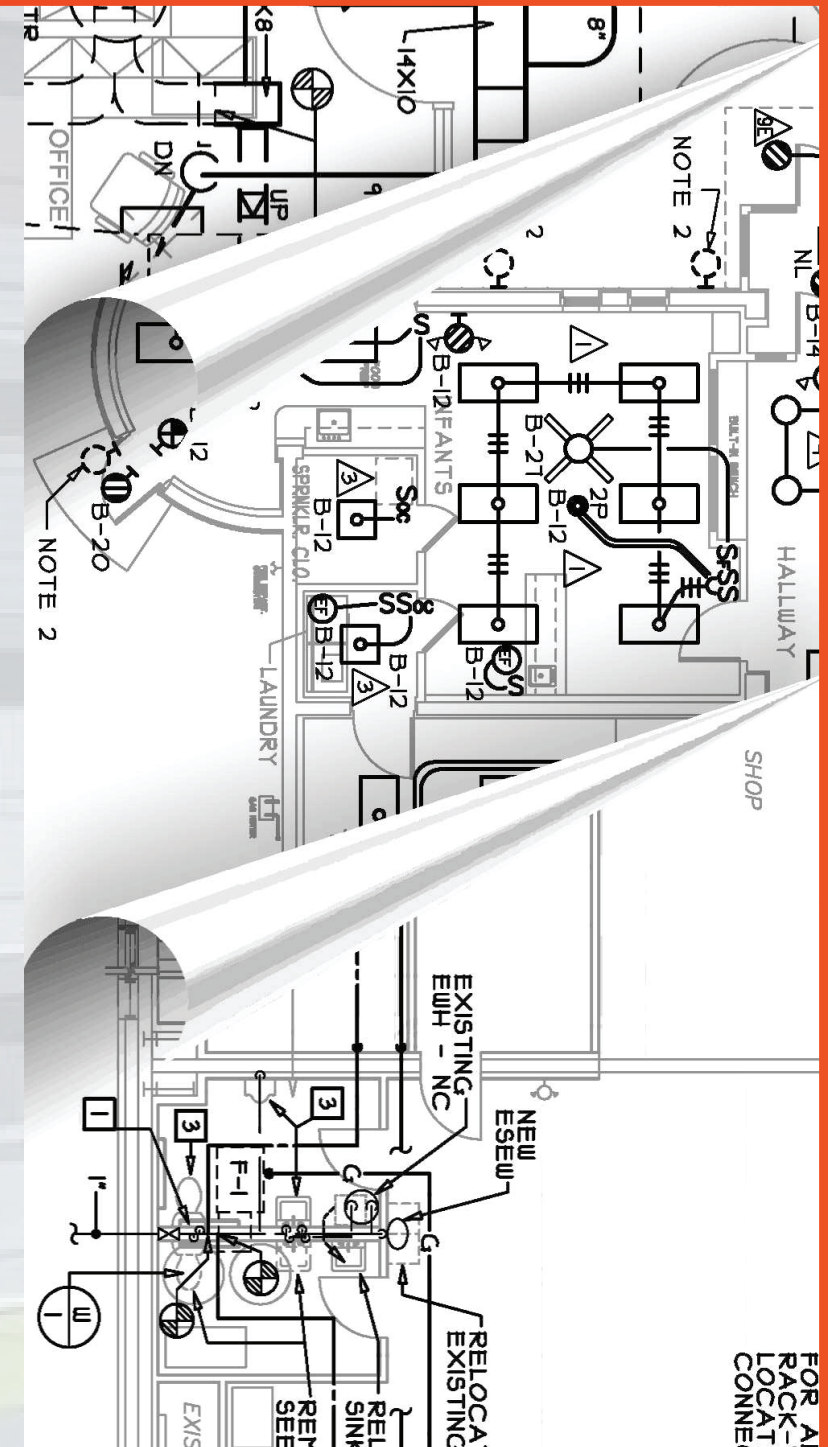
## **SERVICES OFFERED**



# ENGINEERING DESIGN CONSULTING SERVICES

MEPFIT Design Services offers solution tailored to Client's need in MEP Engineering through:

- Feasibility Studies
- Project Planning
- Design Criteria
- Conceptual & Preliminary Design
- Detailed / Bidding Design
- Bidding Contract Documents
- Construction Design
- Engineer Cost Estimation
- Technical Bid Evaluation
- Financial Bid Evaluation
- Variation Reports
- Design Vetting Review
- Field Design Supports



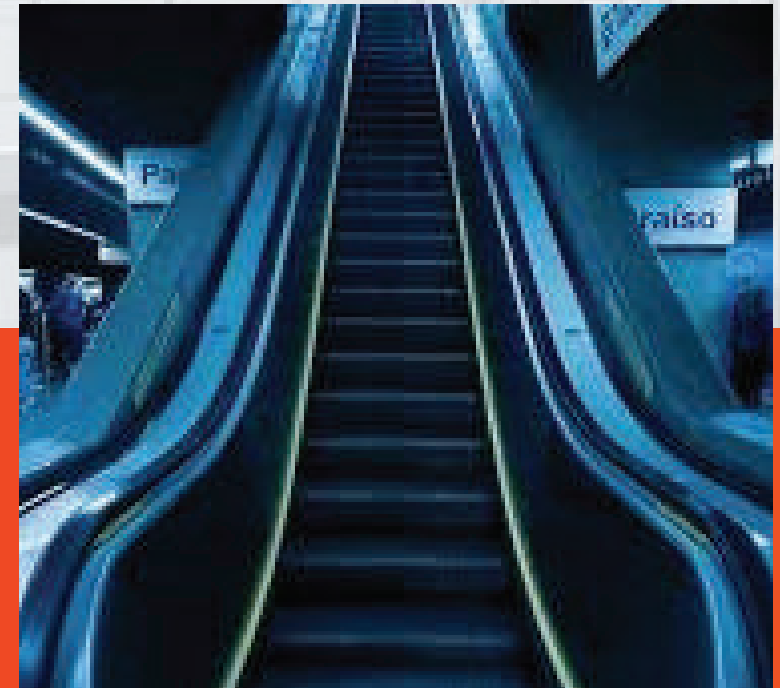


## HVAC ENGINEERING SERVICES

- District Cooling / Heating Air Conditioning System
- Centralised Cooling / Heating Air Conditioning System
- Packaged Air Conditioning System
- VRF / VRV Air Conditioning System
- Unitary / Split Units Air Conditioning System
- Precision / Close Control Air Conditioning System
- Clean Room ISO Class Air Conditioning
- Radiosurgery / Radiotherapy Area Air conditioning
- Biosafety level (BSL) Laboratories Air Conditioning
- Basement Ductless Ventilation System
- Ventilation System for Industrial environment
- Commercial Kitchen Ventilation System
- Indoor Swimming Pool Ventilation and Dehumidification System
- Stairwell Pressurisation and Smoke Extraction System
- Building Management System (BMS)

## MECHANICAL ENGINEERING SERVICES

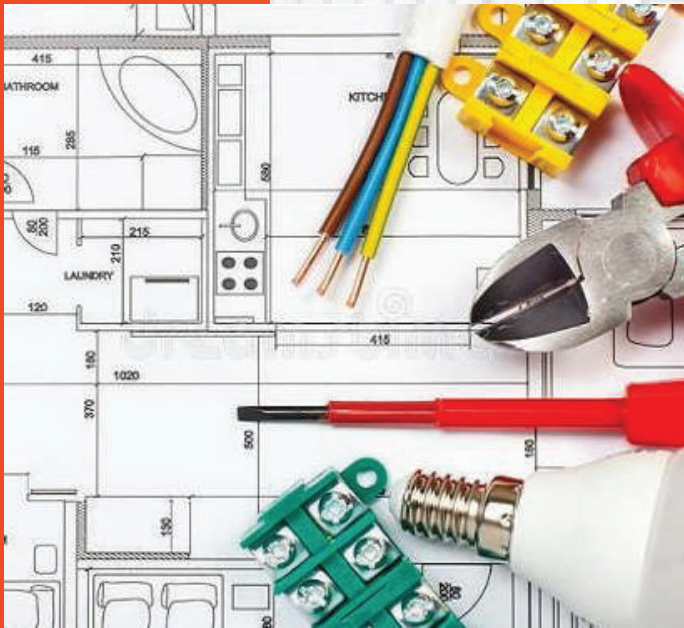
- Vertical Transportation System (Escalators, Elevators / Lifts, Dumbwaiter)
- Cold Storage, Blast Freezer, Individual Quick Freezer (IQF)
- Overhead Travelling Cranes, Monorail, Hoists, etc





# ELECTRICAL ENGINEERING SERVICES

- Equipment / Substation room planning and sizing
- External and Internal Illumination
- Power Distribution
- Earthing System
- Lighting Protection System
- Task Lighting
- Solar System Design
- Wind Energy System Design



# INFORMATION TECHNOLOGY AND COMMUNICATION ENGINEERING SERVICES

- IP Telephone and Data System
- Fire Alarm System
- CCTV System
- Access Control System
- Public Address System
- CATV System
- IP Nurse Call System



# PLUMBING ENGINEERING SERVICES



- Hot and Cold Water System
- Sanitary Drainage System
- Grey Water System
- Waste Water Recovery System
- Venting System
- Rainwater Disposal System
- Natural Gas / LPG System
- Compressed Air System
- Vacuum System
- Medical Gas System
- Irrigation System

# FIRE FIGHTING ENGINEERING SERVICES

- Portable Fire Extinguisher System
- Fire Hose Reel System
- Water Based Sprinkler System
- Gas Based (CO<sub>2</sub>) System
- Clean Agent (Novec / FM200) System







MEP Design service needs to provide the drawings that are coordinated and detailed, meeting all regulations for their purpose including installation, operation and maintenance.

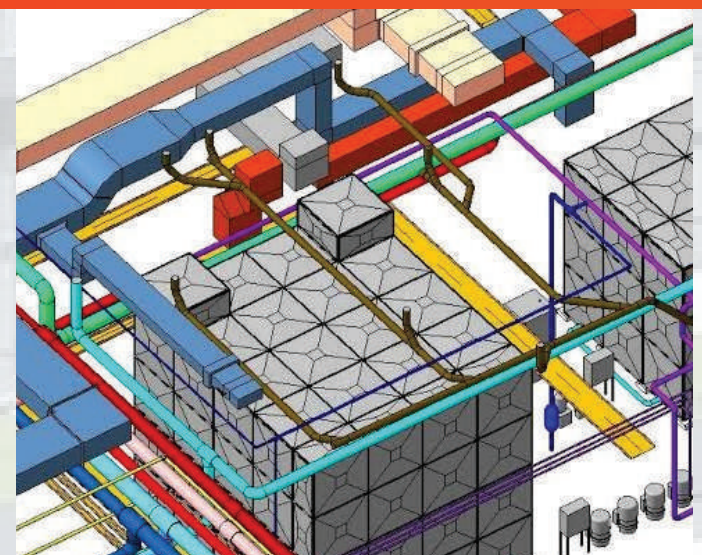
MEPFIT encourages the clients and contractors for the BIM / Revit services for better visualizing of the design, coordinated drawings, clash detection and solve the clashes which causes delay in construction work and eventually save timeline and cost of the project.

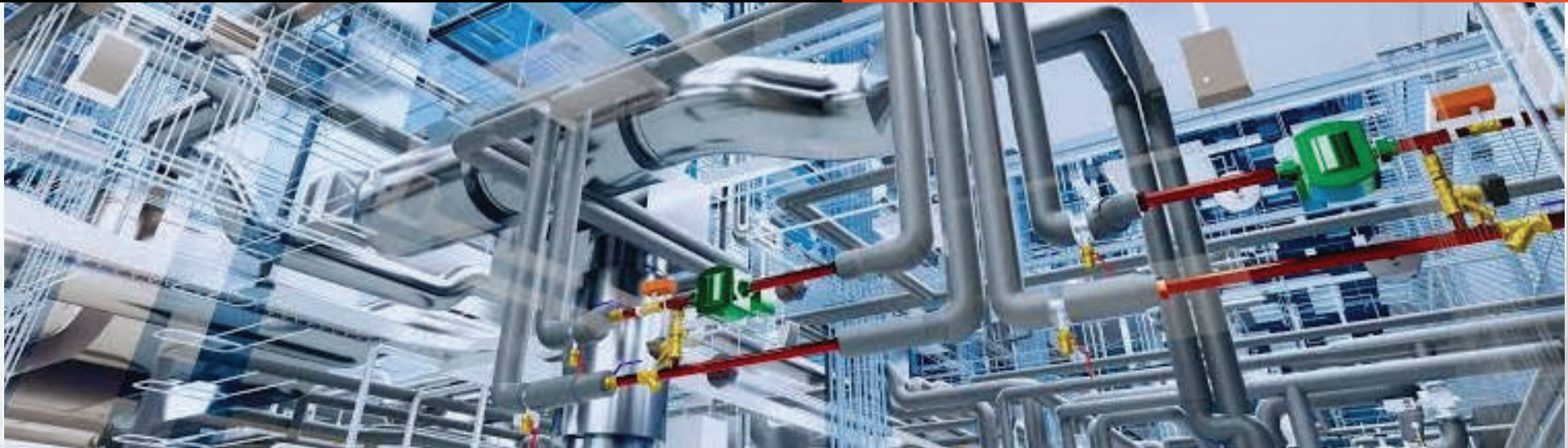
- BIM services can be provided upto following LOD (Level of Details)
- LOD 100 - Conceptual Design
- LOD 200 - Preliminary Design
- LOD 300 - Detailed / Bidding Drawing Design
- LOD 400 - Construction / Shop Drawing Design
- LOD 500 - As Built Design

Expertise to provide the drawing services in following BIM / Autodesk softwares

- REVIT
- NAVISWORKS
- AUTOCAD

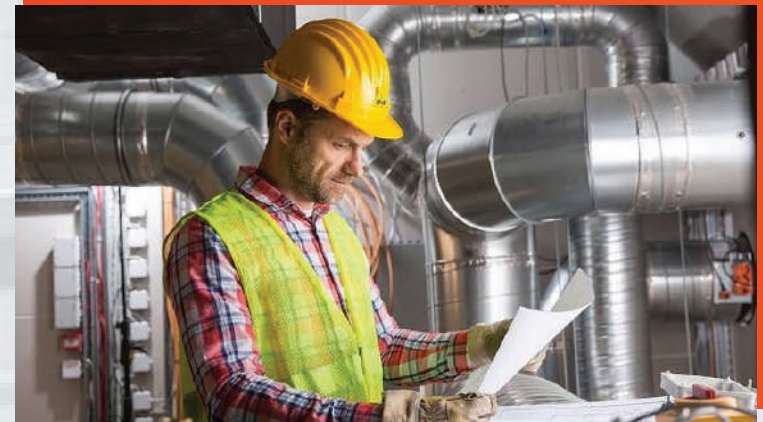
# BIM / REVIT 3D / CAD SERVICES





# PROJECT EXECUTION / CONSTRUCTION SUPERVISION SERVICES

- Construction Management and Planning
- Top or Detailed Supervision
- Material Submittals
- Material Inspections
- Shop Drawings
- Services Coordination
- Bill Verification
- Testing, Balancing and Commissioning
- Turnkey Execution with Quality Assurance in collaboration with associates





# EPC / TURNKEY PROJECT AND VALUE ENGINEERING SERVICES

Engineering, Procurement and Construction (EPC) or Turnkey Projects are ideal one window solutions for the Client as there is a single point responsibility of the main contractor to complete the project on a fixed completion date and hassle free from client to sort issues from all the stakeholders.

MEPFIT capable to provide the MEP engineering design services, coordination via Revit and project execution in collaboration with their associates to the EPC / Turnkey projects.



Value Engineering involves the analysis of the functions of the project, system, equipment, product, or service to improve the reliability, performance, safety, quality and lifecycle costs

MEPFIT aim of the project analysis is to determine the best value by establishing a relationship with value and cost and ensures that MEP systems and equipments perform their basic function in the lowest lifecycle cost. It is best to be performed at the design stage, however it is also profitable to be applied during execution or executed project to save the valuable cost of the client.



## PROJECT HIGHLIGHTS

### ONCOLOGY COMPLEX – SIUT MEHRUNISA

LOCATION: KARACHI, PAKISTAN

YEAR: 2023



#### Details:

Client	Sindh Institute of Urology and Transplantation (SIUT)
Area	Approx. 225,000 sft.
Level	BF+GF +5F
Application	Hospital Radiology and Oncology Center mainly comprises of MR Linac, Linac, Brachy, CT Simulators, Chemo Bay, Cytotoxic Lab, ICU wards and Isolation rooms.
Services	<ul style="list-style-type: none"><li>• Revit Services upto LOD 350 level (MEP Coordinated Clash Free Revit Models along with Basic Architecture and Structure Revit Models)</li><li>• Centralized Water Cooled Chilled Water Air Conditioning System</li><li>• Machine Chilled Water System</li><li>• Mechanical Ventilation System (including Substation Ventilation)</li><li>• Plumbing System (including RO Plant System)</li><li>• Fire Fighting System (including Novec System)</li><li>• Electrical System (including Substations Designing)</li><li>• Communication System</li></ul>



## SALES GALLERY

LOCATION: ISLAMABAD, PAKISTAN

YEAR: 2022-23

### Details:



Client	Capital Smart City
Area	Approx. 129,000 sft.
Level	B+ GF+MF+2F
Application	Commercial Building mainly comprises of Shops and Offices
Services	<ul style="list-style-type: none"><li>• VRF Air Conditioning System</li><li>• Mechanical Ventilation System</li></ul>



# GAMMA KNIFE RADIOSURGERY CENTER – DUHS

LOCATION: KARACHI PAKISTAN  
YEAR: 2020

Details:



Client	Dow University of Health Sciences (DUHS)
Area	Approx. 8,500 sft.
Level	GF
Application	Hospital Radiosurgery Center
Services	<ul style="list-style-type: none"><li>• Revit Services upto LOD 350 level (MEP Coordinated Clash Free Revit Models along with Basic Architecture and Structure Revit Models)</li><li>• Centralized Air Cooled Chilled Water Air Conditioning System</li><li>• Mechanical Ventilation System</li><li>• Plumbing System</li><li>• Fire Fighting System</li></ul>



## MR LINAC FACILITY – DUHS

LOCATION: KARACHI PAKISTAN

YEAR: 2023

### Details:



Client	Dow University of Health Sciences (DUHS)
Area	Approx. 6,500 sft.
Level	GF
Application	Hospital Radiosurgery Center
Services	<ul style="list-style-type: none"><li>• Revit Services upto LOD 350 level (MEP Coordinated Clash Free Revit Models along with Basic Architecture and Structure Revit Models)</li><li>• Centralized Air Cooled Chilled Water Air Conditioning System</li><li>• Machine Chilled Water System</li><li>• Mechanical Ventilation System</li><li>• Plumbing System</li><li>• Fire Fighting System (including Novec System)</li><li>• Electrical System</li><li>• Communication System</li></ul>



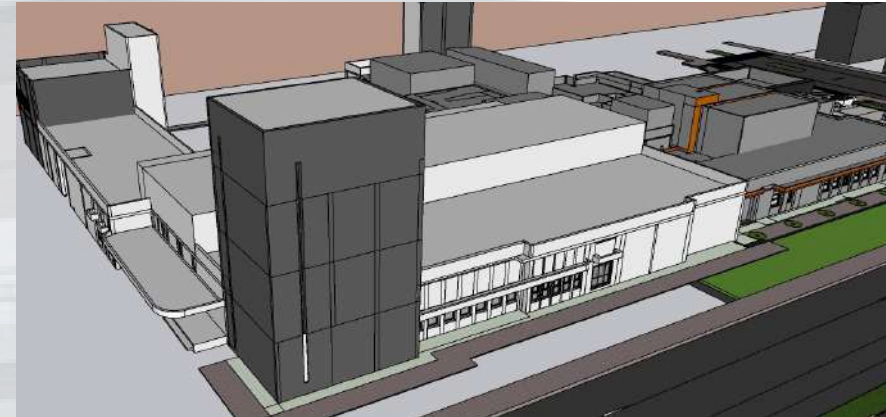


# NUCLEAR MEDICINE FACILITY – DUHS

LOCATION: KARACHI PAKISTAN

YEAR: 2023

Details:



Client	Dow University of Health Sciences (DUHS)
Area	Approx. 35,000 sft.
Level	GF +1F
Application	Hospital Radiology and Nuclear Medicine Center mainly comprises of MRI, CT Simulators, PET/CT Scanner, Spect Room and Cyclotron
Services	<ul style="list-style-type: none"><li>• Revit Services upto LOD 350 level (MEP Coordinated Clash Free Revit Models along with Basic Architecture and Structure Revit Models)</li><li>• Centralized Air Cooled Chilled Water Air Conditioning System</li><li>• Machine Chilled Water System</li><li>• Mechanical Ventilation System</li><li>• Plumbing System</li><li>• Fire Fighting System</li><li>• Electrical System</li><li>• Communication System</li></ul>



## ROYAL CLUB

LOCATION: MULTAN, PAKISTAN  
YEAR: 2022

### Details:



Client	Capital Smart City
Area	Approx. 151,000 sft.
Level	B+ GF+2F
Application	Club Building mainly comprises of Indoor Swimming Pools, Cinemas, Gyms, Gaming Zones and Restaurant.
Services	<ul style="list-style-type: none"><li>• VRF Air Conditioning System</li><li>• DX-Air Handling Air Conditioning System</li><li>• Indoor Pool Dehumidification System</li><li>• Mechanical Ventilation System</li></ul>



# SHEIKH ZAYED HOSPITAL

LOCATION: LAHORE, PAKISTAN

YEAR: 2018

## Details:



Client	Sheikh Zayed Hospital
Area	-
Level	-
Application	Hospital Modular Operation Theatres
Services	<ul style="list-style-type: none"><li>• ISO Class-5 Clean Room Operation Theatre Designing</li><li>• Centralized Air Cooled Chilled Water Air Conditioning System</li><li>• Mechanical Ventilation System</li></ul>

# BONE MARROW TRANSPLANT

## (BMT) WARD - GIMS

LOCATION: GAMBAT, PAKISTAN

YEAR: 2020

Details:



Client	Gambat Institute of Medical Sciences (GIMS)
Area	-
Level	2F
Application	Hospital Clean Room Ward
Services	<ul style="list-style-type: none"><li>• ISO Class-8 Clean Room Designing</li><li>• Centralized Air Cooled Chilled Water Air Conditioning System</li><li>• Mechanical Ventilation System</li></ul>





# LORD'S BANQUET

LOCATION: KARACHI, PAKISTAN

YEAR: 2022-23

## Details:

Client	Allmed Solutions
Area	Approx. 40,000 sft.
Level	B2+B1+ GF (Double Height)+1F
Application	Multipurpose building mainly comprises of Banquets, Ware Houses and Offices.
Services	<ul style="list-style-type: none"><li>• VRF Air Conditioning System</li><li>• DX-Air Handling Air Conditioning System</li><li>• Mechanical Ventilation System</li></ul>



# OTHER PROJECTS

- World Memon Community Center, Karachi
- Jan Mall, Quetta
- Sayed Abdullah Shah Institute of Medical Sciences, Sehwan
- World Bank Solar Energy Project
- Medimarker's Laboratories, Hyderabad
- National Academy of Performing Arts, Karachi
- Davis Plant, Popular Industries, Nooriabad
- Converting Plant, Popular Industries, Nooriabad
- Tayyab Villas, Faisalabad
- Smart Villas, Shikarpur
- Proposed Residential design for
- Mr. Kayode Abiba, Nigeria

*Sheikh Zayed  
Hospital  
(Lahore)*



*Gamma Knife  
RadioSurgery  
Centre DUHS  
(Karachi)*



*Gambat  
Institute of  
Medical Sciences*







# MEPFIT

CONSULTING ENGINEERS

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